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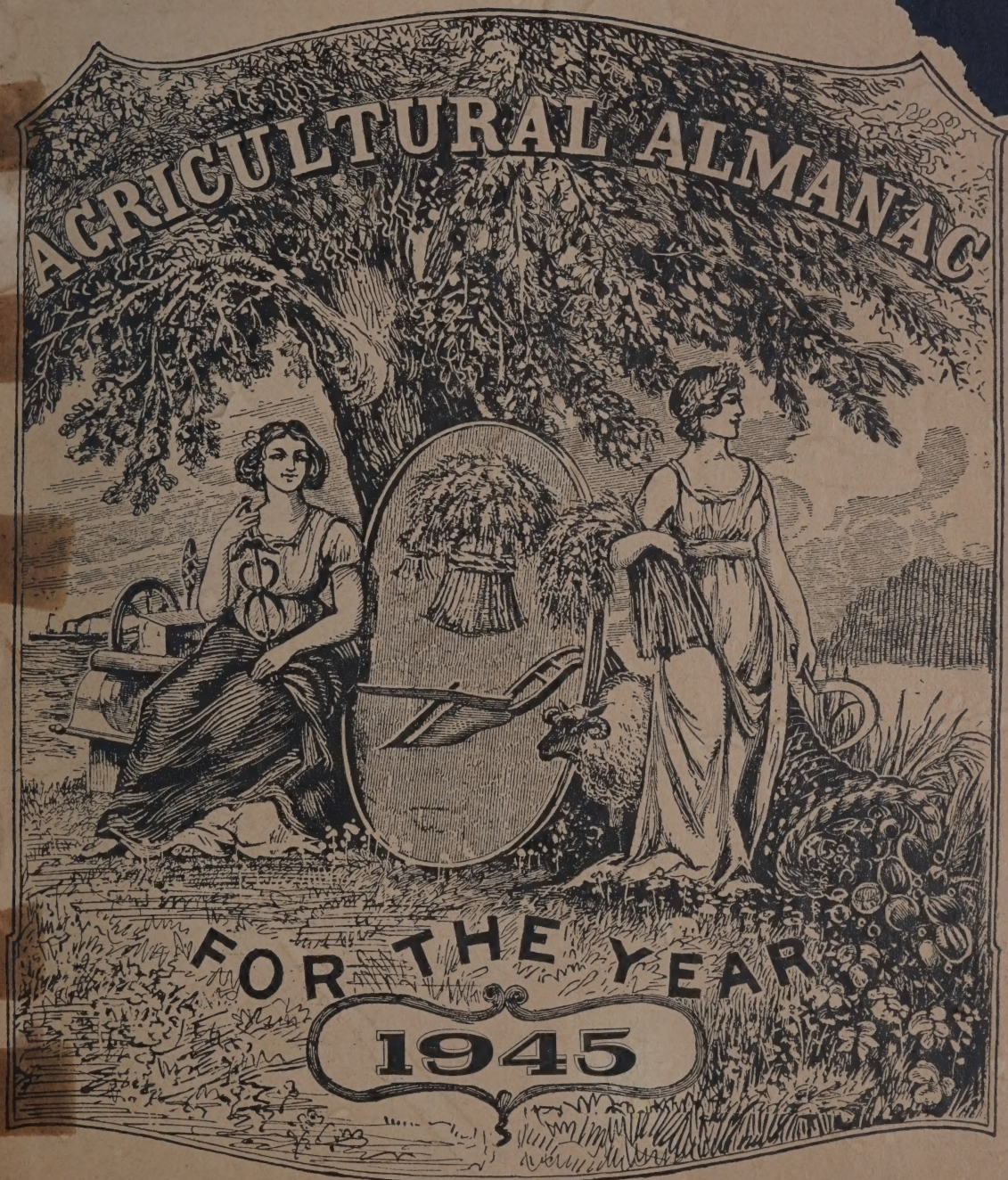

JOHN BAER'S SONS, INC., *Lancaster, Pa.*

Eclipses for the Year 1945

There will be four eclipses in 1945, two of the Sun and two of the Moon, as follows:

1. An annular eclipse of the Sun, Jan. 14, invisible in the United States: visible in southern Africa, Australia and Antartica.

2. A partial eclipse ot the Moon, June 25, invisible in the United States: visible the Pacific Ocean, eastern Asia, Australia and southern Africa.

3. A total eclipse of the Sun, July 9 visible in the United States. The total phase will be visible in a narrow belt extending from near Boise, Idaho, northeastward across Montana, Canada, Hudson Bay, Greenland, Sweden, Norway. Finland, and eastern Russia. At all points in the United States west of a line extending from Mobile, Ala., northwestward to eastern Montana, the sun will rise partly eclipsed. East of that line, the eclipse will begin shortly after sunrise.

4, A total eclipse of the Moon, Dec. 18, visible in the United States.

JUPITER IS THE "REIGNING PLANET" THIS YEAR.

CARDINAL POINTS - - -Eastern Standard Time- - -

Vernal Equinox, entrance of the Sun into Aries, March 20, at 6 o'clock 38 min. in the evening.
Summer Solstice, entrance of the Sun into Cancer, June 21, at 1 o'clock 52 minutes in the afternoon.
Autumnal Equinox, entrance of the Sun into Libra, Sept. 23, at 4 o'clock, 50 min. in the morning.
Winter Solstice, entrance of the Sun into Capricorn, Dec. 22, at 12 o'clock, 4 min. in the morning

Centennial Almanac for the Year 1945.

The following is an extract from the "Centennial Almanac" for the year 1945:

JUPITER is the Reigning Planet this year.

Year in General—This year is rather favorable, however more humid than dry; but as its predecessor, Saturn, with his tedious winter and excessive cold, will still hold on until in the Spring, it will be a late year, so that often in this year all kinds of grain will grow up three weeks later than in other years.

Spring.—Until May cold and humid; in the middle, during ten or twelve days, temperate and mild; but afterwards to the end, cold and humid.

Summer.—In the beginning cold and humid; in the middle pleasant, diversified with frequent thunderstorms; towards the end very hot. If in this year a dry summer occurs, which in the course of twenty-eight years seldom happens, grain will become dear. A dry summer will take place, if during the preceding February, March, April, or May an eclipse of the Sun has occured.

Autumn.—Rainy throughout.

Winter.—In the beginning quite cold, with much snow, but towards the end quite moderate and without snow; high winds will, however, prevail.

Cultivation of Summer Grain.—This is a favorable year for the cultivation of barley, which grows abundantly and of a good quality, if the summer be not dry. A good supply of it should be cultivated, because in the two following years but little is to be hoped for. On the other hand, oats, peas and millet will yield but little and remain small, but will be good. There will be a good yield of hay and aftermath, but not in all places; also of cabbage and turnips. A good supply of hay, straw and fodder should be made, as in the two succeeding years very little is to be expected.

Cultivation of Winter Grain.—No sheep must be driven into the grain to graze either in the Spring or Autumn. The season will be late, notwithstanding Jupiter is disposed to great humidity, that all kinds of grain will often in this year grow up later than in other years.

Autumn Seeding.—Notwithstanding the closing of the ground by frost and snow will take place slowly, it will be better to sow early than late, particularly the wheat on account of the rough and dry spring which will follow. If the grain is not grown out too much, which happens but seldom, the sheep may be permitted to run upon it.

Fruit.—Notwithstanding the year upon the whole is favorable, the yield of pears and acorns will be small.

Hops.—The yield will be small, but the strength of the crop will be good.

Grape Culture.—In the course of twenty-eight years it happens scarcely once—as the ancients say—that in one year of that series a good vintage will take place, and mostly but an ordinary wine will be produced.

Tempests and Thunderstorms.—The west wind will generally prevail, but sometimes also the south wind. Notwithstanding there will be much rain during the year, no considerable floods will take place, except when the snow disappears. During the summer there will be many thunderstorms, but without causing much injury.

Reptiles and Vermin.— As this year will for the most part be cold, there will be but few snakes, toads and grasshoppers, and but few worms in the grain. At the close of autumn, however, mice will be numerous.

Fish.—Will everywhere be moderately abundant.

Disease.—In the autumn headaches and hypochondriac diseases will prevail.

AGRICULTURAL

ALMANAC,

FOR THE YEAR OF OUR LORD

1945,

Being the First After Leap Year, and until the 4th of July the 169th of American Independence.

CONTAINING

The rising, setting, and eclipses of the Sun and Moon; the phases and places of the Moon; the aspects of the planets, the rising, setting, and southing of the most conspicuous planets and fixed stars, the equation of time, and the time of high water at Philadelphia; with a variety of useful and entertaining matter.

Carefully Calculated for the Meridian of Pennsylvania and the adjoining States by HART WRIGHT COMPANY, Penn Yan, N. Y.
Inquiries about Astronomical Data should be mailed direct to them.

JOHN BAER'S SONS, Inc., LANCASTER, PA.

Mailed postpaid for 15 cts. a copy. For wholesale rates address Publishers

Movable Feasts and Chronological Cycles.

MOVABLE FEASTS.

Holy Name of Jesus, January 2.
Septuagesima Sunday, January 28.
Sexagesima Sunday, February 4.
Quinquagesima Sunday, February 11
Shrove Tuesday, February 13
Ash Wednesday, February 14
Quadragesima Sunday, February 18
Mid Lent Sunday, March 11.
Passion Sunday, March 18
Palm Sunday, March25.
Maundy Thursday, March 29.
Good Friday, March 30.
Easter Sunday, April 1.
Low Sunday, April 8.
Rogation Sunday, May 6.
Ascension Day, May 10.
Mothers' Day, Sunday May 13
Whit Sunday, May 20.
Trinity Sunday, May 27.
Memorial Day, May 30.
Corpus Christi, May 31.
Children's Day, June 10.
Fathers' Day, June 17.
Labor Day, Monday September 3.
Gold Star Mothers' Day, September 30.
Christ, the King, October 28.
Thanksgiving Day, Thursday, November 29.
Advent Sunday, December 2.
Christmas Day, Tuesday, December 25.
Sundays after Trinity this year, 26.

QUATEMBER OR EMBER DAYS.

1st. February 21, 23 and 24.
2nd. May, 23, 25 and 26-
3rd. September 19, 21 and 22.
4th. December 19, 21 and 22.

CHRONOLOGICAL CYCLES.

Dominical Letter	G
Lunar Cycle or Golden Number	8
Epact	16
Solar Cycle	22
Roman Indiction	13
Julian Period	6658

The chronology of the Jews for the year 5706 begins at sunset September 7, 1945.
The chronology of the Mohammedans for the year 1365 begins at sunset December 5, 1945.

CHARACTERS OF THE CONSTELLATIONS.

♈ Aries, the Ram.
♉ Taurus, the Bull.
♊ Gemini, the Twins.
♋ Cancer, the Crab
♌ Leo, the Lion.
♍ Virgo, the Virgin.
♎ Libra, the Balance.
♏ Scorpio, the Scorpion.
♐ Sagittarius, the Bowman.
♑ Capricornus, the Goat.
♒ Aquarius, the Waterman.
♓ Pisces, the Fishes.

ASTRONOMICAL CHARACTERS EXPLAINED.

New Moon.

First quarter, or Moon in general.

Full Moon.

Last quarter, or Moon in general.

☊ Moon's Ascending Node, or Dragon's Head.
☋ Moon's Descending Node, or Dragon's Tail.
◡ Moon's Ascension.
◠ Moon's Descension.
☽ Moon in Apogee, furthest from the Earth.
☾ Moon in Perigee, nearest to the Earth.

PLANETS AND ASPECTS.

☉ Sun.
☿ Mercury.
♀ Venus.
♆ Neptune.
⊕ Earth.
♂ Mars.
♃ Jupiter.
♄ Saturn.
♅ Herschel, or
♅ Uranus.
☾ Moon.

☌ Conjunction, or planets in the same longitude.
□ Quartile, when they are 90 degrees apart.
☍ Opposition, when they are 180 degrees apart.

NOTE: The Sun and Moon Rises and Sets are given in Civil Time' The Moon's Phases are given in Eastern Standard Time and the Rising, Setting and Southing or Meridian Passage of the Stars, Constellations or Signs, in Civil Time. The Philadelphia High Water is in E. S. T. also, and is the Daylight highwater; for the other highwater subtract or add 12 hours and for the low-waters apply 6 hours either way. For the Standard Time applicable to Lancaster and vicinity add 4 minutes to the Civil Time. For War time add an additional hour. The Moon's place is given for 7 P. M. Eastern Standard Time.

How to Use the Almanac and Understand it.

Many persons do not fully understand how to use an almanac, and for the benefit of such, the following information is given:

Quatember or Ember Days.—An epithet applied to certain fast-days appointed by Pope Calixtus for imploring the blessings of God on the fruits of the earth, and upon the ordinations performed in the church at this time.

Dominical Letter.—This is called also the Sunday letter, and is simply an expedient by means of which we can more readily ascertain the day of the week on which any day of the year falls, provided we know on what day of the week New Year Day falls. To the first seven days of January are affixed the first seven letters of the alphabet—A, B, C, D, E, F, G—and of these that which denotes Sunday is called the Dominical Letter. Thus, if Sunday is New Year Day, then A is the Dominical Letter; if Monday, the letter is G, etc.

Lunar Cycle or Golden Number.—This is a period of nineteen years, after which time the New and Full Moon fall approximately on the same day of the month as they did at the beginning of the period. Any number of this period is called the Golden Number. To find the Golden Number add 1 to the given year and divide by 19, and the remainder is the number; if there be no remainder, however, the number is 19. Thus for 1931, add 1=1932; divided by 19=101, with a remainder of 13, which is the Golden Number.

Epact.—The Epact is the Moon's age at the beginning of the year, or the number of days which have elapsed since the last new moon. Its use is in finding the Paschal Full Moon.

Solar Cycle.—A period of 28 years, after which the days of the month return to the same days of the week. Its chief use is to find the Dominical Letter, of which mention has been made.

Roman Indiction.—The Roman Indiction is a cycle of 15 years and is reckoned from the year 313 as its origin. Hence, if any given year less 312 be divided by 15 the remainder will be the current year of the period.

Julian Period.—Reckoned from the year 4713 B. C., and may be found by adding 4713 to any given year. Its chief use is found in chronological data.

The following is explanatory of the calendar pages of the almanac:

H. w. h.—The figures in this column signify the hours at which the tide reaches its highest point at the city of Philadelphia.

Moon South.—The figures in this column denote the time that the Moon crosses the meridian.

Moon Place.—This column indicates the passage of the Moon through the Zodiac and the signs it enters on the respective dates. The figures in this column give age of the Moon each day at 7 P. M.

Moon R. & S.—The figures in this column indicate the hour and minute at which the Moon rises or sets, as is indicated by these words.

Miscellaneous Particulars.—This column contains much and varied information. It gives the rising and setting of the principal planets and some of the fixed stars. The fixed stars, which can always be seen on clear nights, are all suns shining by their own light and are at tremendous distances from the earth. They apparently rise and set about the same time from year to year, moving from east to west with the entire vault of the heavens; but since the earth in her yearly path around the sun moves from west to east, these stars rise and set about four minutes earlier each day.

This column indicates the planetary conjunctions, and, as the Moon passes through the twelve signs of the Zodiac each month, conjunctions of this body with the planets are also given. The Moon moves rapidly when nearest the earth (indicated by "Moon in Perigee") and slowly when farthest from the earth (indicated by "Moon in Apogee"). This column also shows when the Sun enters the various signs.

The character which represents the Moon's ascending node denotes that on the date indicated the Moon in ascending crosses the path of the Sun. The symbol which represents the Moon's descending node denotes that on the date indicated the Moon crosses the Sun's path in descending.

The character which represents the Moon's ascension denotes the date of the Moon's greatest declination south (i. e., farthest south), and the character representing the Moon's descension indicates the Moon's greatest declination north.

A planet is said to be in conjunction with another body when it has the same celestial longitude. In inferior planets (Mercury and Venus) this conjunction is of two kinds. When the planet is between the earth and the Sun it is called inferior conjunction and when at the opposite point of its orbit superior conjunction.

Meteors or shooting stars are small heavenly bodies of metalic or stone composition that pass through the atmosphere of the earth by the millions every twenty-four hours. They are always most numerous in the hours after midnight and at times appear in showers. Most of them are little larger than a grain of sand.

Abbreviations.—E., evening; m., morning; Per., perigee; Apo., apogee; M., Meteors; S. or So., south or on Meridian; R., rises; S., sets.

JANUARY, 1st Month.

Weeks and Days.	Remarkable Days.	H. w. h.	The Moon: South morn. h. m.	Place & Age	rises eve. h. m.	Miscellaneous Particulars	The Sun: slo. m.	rises. h. m.	sets. h. m.
Monday	1 *New Year*	4	2 21	♑ 17	7 54	⊕ nearest ☉	3	7 22	4 45
Tuesday	2 *Holy Name*	4	3 10	♑ 18	8 54	♀ Sets 8 19 e	4	7 22	4 46
Wednesd	3 Enoch	5	3 55	♑ 19	9 54	♒ Sete 6-8 e	4	7 22	4 47
Thursday	4 Methuselah	6	4 38	♑ 20	10 52	♂ ♅ ☾, ♒ Sets 1-3M	5	7 22	4 48
Friday	5 Simon	7	5 20	♒ 21	11 49	☾ in APOGEE ♂♆☾	5	7 22	4 49
Saturday	6 *Epiphany*	7	6 1	♒ 22	morn	6. Alpheratz So 5 2e	6	7 22	4 50
1] *1st Sunday after Epiphany.*						Day's length 9 hours 29 min.			
Sunday	7 Isidor	8	6 42	♒ 23	12 46	□ of Pegasus So. 4-5e	6	7 22	4 51
Monday	8 Erhard	9	7 25	♒ 24	1 44	Capella So. 10 1 e	7	7 22	4 52
Tuesday	9 Julian	10	8 10	♒ 25	2 43	♒ rises 9–11 e	7	7 22	4 53
Wednesd	10 *Paul, Herm.*	11	8 58	♓ 26	3 44	7 Sisters So. 8 e	7	7 22	4 54
Thursday	11 Hyginus	12	9 49	♓ 27	4 46	♂ rises 6 24 m	8	7 22	4 55
Friday	12 Rinehold	12	10 44	♓ 28	5 49	♂☿☾, ♂♂☾, ☿ Fur. W.	8	7 21	4 56
Saturday	13 Hilary	1	11 41	♓ 29	6 49	Moon lowest ♉	9	7 31	4 57
2] *2nd Sunday after Epiphany.*						Day's length 9 hours 37 min.			
Sunday	14 Felix	2	ev. 39	♈ 0	sets eve.	14 ♈ So. 10–12e	9	7 21	4 58
Monday	15 Maurice	3	1 37	♈ 1	6 40	♒ So. 8 10 e	9	7 20	4 59
Tuesday	16 Marcellus	4	2 33	♓ 2	7 52	Jobs Coffin sets 8:30 e	10	7 20	5 00
Wednesd	17 Franklin born	4	3 27	♓ 3	9 4	☾ in Perigee, ♂♀☾	10	7 20	5 01
Thursday	18 Prisca	5	4 19	♈ 4	10 15	Lepus So. 9–10 e	10	7 19	5 02
Friday	19 *Lee Born*	6	5 10	♈ 5	11 26	Kids So. 9 30e	11	7 19	5 03
Saturday	20 Sebastian	7	6 0	♈ 6	morn	20. ☉ enter ♓	11	7 18	5 04
3] *3rd Sunday after Epiphany.*						Day's length 9 hours 48 min.			
Sunday	21 Agnes	8	6 51	♈ 7	12 35	♃ rises 9 45 e	11	7 18	5 05
Monday	22 Vincent	9	7 43	♈ 8	1 45	Auriga So. 9-10 e	12	7 17	5 08
Tuesday	23 Emerentia	10	8 36	♓ 9	2 53	♂♅☾, Pollux So. 11 31e	12	7 17	5 09
Wednesd	24 *St. Catherine*	11	9 31	♓ 10	4 0	Betelguese So. 9 38 e	12	7 16	5 10
Thursday	25 *Paul's Conv.*	11	10 26	♈ 11	5 3	♂♄☾ (close), ♒ So 12-2 M	12	7 15	5 11
Friday	26 Polycarpus	12	11 20	♈ 12	6 1	Moon hst.. ♂♀♂ Close ♋	13	7 14	5 12
Saturday	27 Chrysostom	1	morn.	♈ 13	6 52	Sirus So. 10 17 e	13	7 13	5 13
4] *Septuagesima Sunday.*						Day's length 10 hours 1 min.			
Sunday	28 Charles	2	12 12	♈ 14	rises eve.	28. Castor So 11 e	13	7 13	5 14
Monday	29 *McKinley born*	3	1 2	♈ 15	6 41	Algol So. 6 28 e	13	7 12	5 15
Tuesday	30 Adelgunda	3	1 49	♑ 16	7 41	Pleiades So. 7 e	13	7 11	5 16
Wednesd	31 Virgil	4	2 32	♑ 17	8 40	♂♃☾ ♄ sets 5 0 m	13	7 10	5 17

January has 31 Days.

MOON'S PHASES, &c.

Last Quarter the 6th, at 7 o'clock 47 minutes in the morning; fair.

New Moon the 14th, at 12 o'clock 6 minutes in the morning; unsettled.

First Quarter the 20th, at 6 o'clock 48 minutes in the evening; stormy.

Full Moon the 28th, at 1 o'clock 41 minutes in the morning; gales.

THE PLANETS IN 1945

Morning Stars

MERCURY—A few days before and after January 12, May 11, September 6 and December 26.
VENUS—April 15 to December 31.
MARS—The entire year of 1945.
JUPITER—January 1 to March 13 and October 1 to December 31.
SATURN—July 6 to December 31.

Evening Stars

MERCURY—A few days before and after March 26, July 23 and November 17.
VENUS—January 1 to April 15.
MARS—Not in 1945.
JUPITER—March 13 to October 1.
SATURN—January 1 to July 6.

Brightest or Best Seen

MERCURY—As an Evening Star March 20 to 30, setting about an hour after the Sun near the sunset point of the horizon: also as a Morning Star September 1 to 10, rising about an hour before the Sun near the sunrise point.
VENUS—As an Evening Star March 10 and as a Morning Star May 21.
MARS—The last part of the year.
JUPITER—May 13, when opposite the Sun.
SATURN—In January and December.

Dim or Invisible

MERCURY—At all other times than those given above.
VENUS—In April and December.
MARS—In January and February.
JUPITER—In September and October.
SATURN—June 20 to July 20.
URANUS, NEPTUNE and PLUTO—At all times to the naked eye.

LARGE STAR CHART AND MAP OF THE HEAVENS
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Penn Yan, N. Y.

THE USE OF LIME

Lack of lime in the soil is often one of the contributing factors responsible for poor growth and low yields in the garden. Beets and spinach are two good soil-indicator crops and will readily show by their ragged or stunted growth either

an excess soil acidity or alkalinity condition. If you suspect that your garden soil is acid, you can have a sample of it tested by your county agent or college of agriculture.

The majority of soils require lime—in many instances, not so much for the correction of soil acidity, but for the incorporation of calcium and magnesium, two very important plant nutrients in the ground. For the same reason commercial fertilizer is applied to provide nitrogen, phosphorus and potassium for the growing crop. The regular application of lime consists of about 50 pounds of the hydrated lime, or 75 pounds of either pulverized limestone or oystershell limestone, to every 1000 square feet of garden surface.

In addition to correcting soil acidity, lime will improve the texture of heavy clay soils by making them more open or porous and will create conditions in the soil favorable to the beneficial bacterial organisms which make unavailable plant nutrients available. A good method of applying lime is to broadcast half of the full amount and spade it under to the full depth of the spade. Then broadcast the remaining half and thoroughly work it into the soil.

WINTER PRUNING

Winter pruning may be chilly business, but otherwise is preferable. The wounds of branches cut off before spring growth starts seem to heal more quickly than those which are cut off later in the season. It is always a good idea to paint all wounds that are over one inch in diameter with a good asphalt tree paint. Ordinary house paint often kills bark. If you must use ordinary house paint, keep it one fourth of an inch away from the edge of the wound. In pruning trees, a stub of a branch projecting as little as one-eighth of an inch beyond the adjacent wood may be enough to prevent its healing properly.

FEBRUARY, 2d Month.

Weeks and Days.	Remarkable Days.	H. w. h.	The Moon. South morn. h. m.	Place & Age	rises eve. h. m.	Miscellaneous Particulars.	The Sun. slo. m	rises. h. m.	sets. h. m.
Thursday	1 Bridget	5	3 15	♎ 18	9 38	♂☿☾,♀ sets 9 11 e	14	7 9	5 19
Friday	2 *Candlemas*	5	3 56	♎ 19	10 35	Moon in APOGEE ☿Gr. El E.	14	7 8	5 20
Saturday	3 Blasius	6	4 37	♎ 20	11 32	Sirius So. 9 50 e	14	7 7	5 21
5] *Sexagesima Sunday*						Day's length 10 hours 16 min.			
Sunday	4 Veronica	7	5 19	♏ 21	morn	So. 7–9 e	14	7 6	5 22
Monday	5 Agatha	8	6 2	♏ 22	12 30	5. METEOR SHOWERS 5-10	14	7 5	5 23
Tuesday	6 Dorothy	8	6 48	♐ 23	1 29	Denebola rises 7 46 e	14	7 4	5 24
Wednesd	7 Richard	9	7 36	♐ 24	2 30	So.9–11 e	14	7 3	5 26
Thursday	8 Solomon	10	8 28	♐ 25	3 31	sets 11 e–1 mo.	14	7 2	5 27
Friday	9 Apolonia	11	9 24	♐ 26	4 31	Moon lowest ♋	14	7 1	5 28
Saturday	10 Scholastica	12	10 21	♐ 27	5 29	☌☌☾ very close ♌	14	7 0	5 29
6] *Quinquagesima Sunday*						Day's length 10 hours 31 min.			
Sunday	11 Euphrosina	1	11 20	♑ 28	6 21	☌☿☾ (close)	14	6 59	5 30
Monday	12 *Lincoln born*	2	cv. 18	♑ 0	sets eve.	12, ♂ rises 5 52m	14	6 57	5 32
Tuesday	13 *Shrove Tues.*	2	1 15	♒ 1	6 44	Hare So. 8e	14	6 56	5 33
Wednesd	14 *Ash Wed.*	3	2 9	♒ 2	7 58	Moon in Perigee	14	6 55	5 34
Thursday	15 Faustinus	4	3 3	♓ 3	9 12	☌♀☾, Kids So. 7 30e	14	6 54	5 35
Friday	16 Julianus	5	3 55	♓ 4	10 24	Castor So. 9 45e	14	6 53	5 36
Saturday	17 Constantia	6	4 47	♓ 5	11 35	Hydes set 1 30m	14	6 52	5 38
7] *Quadragesima Sun., 1st Sun. in Lent.*						Day's length 10 hours 49 min.			
Sunday	18 Concordia	6	5 39	♈ 6	morn	☉ en'rs ♒	14	6 50	5 39
Monday	19 Susanna	7	6 33	♉ 7	12 45	19. ☌♅☾☌ rises 1-3m	14	6 48	5 40
Tuesday	20 Eucharius	8	7 27	♉ 8	1 53	♃ rises 7 35e	14	6 47	5 41
Wednesd	21 *Ember Day*	9	8 21	♊ 9	2 57	M.hst, ☌♄☾(close)	14	6 46	5 42
Thursday	22 Washington's Birthday	10	9 15	♊ 10	3 56	El Nath So. 7 14e	14	6 45	5 44
Friday	23 *Ember Day*	11	10 7	♋ 11	4 49	Praesepe. 10 30e	14	6 43	5 45
Saturday	24 *Ember Day*	12	10 57	♋ 12	5 35	Aldebaran so 10 38e	13	6 41	5 46
8] *2nd. Sunday in Lent*						Day's length 11 hours 7 min.			
Sunday	25 Victor	1	11 44	♋ 13	6 14	Lynx So. 10 30e	13	6 40	5 47
Monday	26 Nestor	1	morn	♌ 14	rises eve.	26. Al'l sts 1 49m	13	6 38	5 48
Tuesday	27 Leander	2	12 29	♌ 15	6 31	□♅☉,☌♃☾,☌♀☉Sup,	13	6 37	5 49
Wednesd	28 Romanus	3	1 12	♎ 16	7 29	☌♆☾. ♃scts 3 5 m	13	6 36	5 50

February has 28 Days.

MOON'S PHASES, &c.

Last Quarter the 5th, at 4 o'clock 55 minutes in the morning; stormy.
New Moon the 12th, at 12 o'clock 33 minutes in the afternoon; windy.
First Quarter the 19th, at 3 o'clock 38 minutes in the morning; unsettled.
Full Moon the 26th, at 7 o'clock 7 minutes in the evening; snow or rain.

ACCIDENTS DON'T "JUST HAPPEN"

Tractor power is terrific when pulling posts and trees. Be cautious. Never stand between tractor and post. The cable may break or the uprooted post crush you. A cautious operator stops his machine before stepping over belts. Belts and pulleys bite. Carelessly pitching forks on loads of hay or in the mow endangers lives of helpers. Keep children off farm machinery. A ride in father's lap on a tractor fender may become a ride to the hospital. It is dangerous to leave a spirited team untied with a child holding the reins. Blasting stumps is dangerous. A short fuse may mean a short life. Adjusting the carburetor on a tractor while it is in motion reflects poor judgment. Stop the tractor; be safe. An iron hook, to lift the tongue of disk or other implement, can be operated from the tractor seat in making hitches. Backing a tractor to disk or plow might crush the operator. Poor judgment is used when one gets down in front of the mowing-machine sickle with the machine in gear and with horses hitched to it. It is safer to be behind. Weak end frames on hay wagons may plunge the driver down under the team. Check and brace before a break. Carelessly climbing over or around a running combine or thresher may cost a hand or a foot. When unhitching a team from any machine be sure both horses are unhitched before leading them away.

LEAP YEAR

Leap Year generally, but not always, occurs at four-year intervals. The true astronomical year, however, is 365 days, five hours, 48 minutes and 46 seconds, while the calendar year is an even 365 days. This means that for each calendar year that is observed there is a surplus of nearly six hours in the astronomical year. This is absorbed by adding one day to the calendar at four-year intervals. But this, then, gives the average calendar year a length 11 minutes and 14 seconds in excess of the true astronomical year. To make the necessary adjustments in the calendar the last year of each century is a leap year only when the number of the century is divisible by four (1600, 2000, etc.) and the years which are multiples of 4000 are observed as common, and not leap years.

THE TOOL BOX

What to do with the tools is frequently the question when putting the garden to bed for the winter.

An answer to this problem of where and how to keep tools handy and protected is the garden chest—useful in summertime as well as winter. This should be a large strong box made with heavy hinges and a good lock. It should be treated inside and out with creosote to protect it from the weather, and when it is dried out, should be painted with two coats of weather-proof paint, preferably in soft gray or any of the attractive greens. The metal hinges should be protected with a lacquer finish.

PROTECT THE SHRUBS

All shrubs or perennials should be given a mulch of manure in the late fall after freezing weather is to be expected. Any sort of manure can be used and the heavier the application the better. In the spring, if there is too much litter to fork into the shrub beds, a portion can be raked off before the beds are cultivated and this part can be put back on the beds immediately for a summer mulch. Dwarf evergreens should never be mulched with fresh manure. Leaves or straw make the best mulching material for this class of plants.

WOOD AND COAL GRATES

Wood and coal grates will give longer and more satisfactory service if the ashes are removed from the ash pan regularly. If they are allowed to pile up, the result will be wasted fuel and burned out linings and grates. To refrain from filling the fire box more than three-fourths full of fuel also helps in conserving fire-box linings and grates and enables your range to give you much better service. Clean the flues around the oven once a week if the soot accumulates rapidly, or every few weeks at least. When cleaning the flues, inspect your stove pipe to be sure it also is free from soot.

MARCH, 3d Month.

Weeks and Days.	Remarkable Days.	H. w. h.	The Moon. South morn. h. m	Place & Age	rises eve. h. m.	Miscellaneous Particulars.	The Sun. slo. m.	rises. h. m.	sets. h. m.
Thursday	1 *St. David*	3	1 53	♎ 17	8 26	☿ sets 9 32 eve	13	6 34	5 51
Friday	2 Simplicius	4	2 34	♎ 18	9 23	Moon in Apogee	12	6 33	5 52
Saturday	3 Samuel	5	3 15	♏ 19	10 21	♎ rises 11e–1m	12	6 31	5 53
9]	*3rd Sunday in Lent*					Day's length 11 hours 25 min.			
Sunday	4 Adrian	6	3 58	♏ 20	11 19	No. Crown So. 4–5m	12	6 30	5 55
Monday	5 Frederick	6	4 42	♐ 21	morn	☾ ♎ So. 1–3 m	12	6 28	5 56
Tuesday	6 Fridolin	7	5 28	♐ 22	12 18	6. ♐ sets 10–12e	12	6 27	5 57
Wednesd	7 Perpetua	8	6 17	♐ 23	1 18	Hercules So. 6–7 m	11	6 25	5 58
Thursday	8 Philemon	9	7 10	♑ 24	2 17	Moon lowest ☋	11	6 23	6 59
Friday	9 Prudence	10	8 5	♑ 25	3 14	Procyn So. 8 29 e ♉	11	6 22	6 00
Saturday	10 40 Martyrs	11	9 2	♑ 26	4 8	Venus brightest	11	6 21	6 1
10]	*Mid-Lent Sunday*					Day's length 11 hours 43 min.			
Sunday	11 Ernestus	12	10 0	♑ 27	4 57	☌☌☾, ♂ rises 5 11 m	10	6 19	6 02
Monday	12 Gregory	12	10 57	♒ 28	5 41	☾ Sirius So. 7 24 e	10	6 18	6 03
Tuesday	13 Emma	1	11 53	♒ 26	sets eve.	13. ☌ ☊ ☉, ♋ Sets 4-6 m	10	6 17	6 04
Wednesd	14 Zachariah	2	ev. 48	♑ 0	6 47	Moon in Pe'gee, ☌☿☾	9	6 15	6 05
Thursday	15 Christopher	3	1 42	♑ 1	8 2	♊ So 6 30–8 30 e	9	6 14	6 06
Friday	16 Cyprianus	4	2 36	♑ 2	9 17	☌♀☾♋ rises 12–2m	9	6 12	6 07
Saturday	17 *St. Patrick*	4	3 31	♑ 3	10 31	Arcturus So, 2 33 m	9	6 10	6 08
11]	*5th Sunday in Lent.*					Day's length 12 hours 0 min.			
Sunday	18 *Passion Sun.*	5	4 26	♊ 4	11 42	Denebola So. 12-2m	8	6 9	6 09
Monday	19 Josephus	6	5 21	♊ 5	morn	☾ ☌♅☾, ♋ so 10-11e	8	6 7	6 10
Tuesday	20 Matrona	7	6 17	♋ 6	12 50	20. ☉ ent ers ♈ spr ing ☌♄☾ cl se	7	6 5	6 11
Wednesd	21 Benedictus	8	7 11	♋ 7	1 52	Moon highesr ♌, ♒	7	6 3	6 12
Thursday	22 Pauline	9	8 4	♋ 8	2 47	♃ sets 5 47 m	7	6 1	6 13
Friday	23 Eberhard	10	8 54	♌ 9	3 35	Hyades set 11 30 e	7	6 00	6 14
Saturday	24 Gabriel	11	9 42	♌ 10	4 16	Venus Stationary	7	5 58	6 15
12]	*Palm Sunday*					Day's length 12 hours 20 min.			
Sunday	25 PALM SUN. ANN. V. M.	11	10 27	♌ 11	4 51	☌♆☉, □♄☉	6	5 56	6 16
Monday	26 Emanuel	12	11 10	♌ 12	5 22	☿ greatest Elong. E	6	5 55	6 17
Tuesday	27 Gustavus	1	11 52	♌ 13	5 50	☾ ☌♃☾, ♋ ri 12-1m	6	5 53	6 19
Wednesd	28 Malchus	2	morn	♍ 14	rises eve.	28. ☌♆☾ POLLUX SO. 7 8 E	5	5 51	6 20
Thursday	29 *Maundy Th.*	2	12 33	♍ 15	7 17	Moon in Apogee	5	5 49	6 21
Friday	30 *Good Friday*	3	1 14	♎ 16	8 14	Praesepe So. 8 e	5	5 48	6 22
Saturday	31 Amos	4	1 56	♎ 17	9 12	♄ sets 1 7 m	4	5 46	6 23

March has 31 Days.

MOON'S PHASES, &c.

Last Quarter the 6th, at 11 o'clock 30 minutes in the evening; fair.

New Moon the 13th, at 10 o'clock 51 minutes in the evening; clear.

First Quarter the 20th, at 2 o'clock 11 minutes in the afternoon; stormy.

Full Moon the 28th, at 12 o'clock 44 minutes in the afternoon; windy.

GET A SEED CATALOG

The seed catalog still functions as a stock joke for cartoonists and columnists, though it has been years since the catalogs stopped promising miracles.

Watermelons large enough to fill a hay wagon, and vines whose growth rivals the fabled beanstalk story are no longer pictured as possible to the purchaser of a favored brand of seeds.

Catalog descriptions are prepared primarily for commercial growers, by whom seedsmen are held strictly to account for the performance of their strains. In size, color and length of season, the crop produced must be uniform and up to specifications, or business will be lost. Garden seed production under these exacting requirements has come to be highly scientific, and the catalog reflects the scientific standard. Each variety offered is grown for distinct merits, which are duly set forth in descriptions upon which one may rely.

The seed catalog is therefore a current encyclopedia of gardening, revised and brought up-to-date each year. Some are so complete as to be preferred reference books in agricultural schools. The first step for anyone planning a garden, then, is to send for a catalog.

Most of the questions in a gardener's mind will be answered in a good catalog. Books on gardening obtainable at any public library will give much information in a more complete fashion, and will help one to interpret and apply the data presented by the seed catalog. But a good catalog is needed not only to plan the garden, but to refer to throughout the garden year. Send for one, and keep it by you, if you wish for gardening success.

VEGETABLE-GARDEN PESTS

The flea beetle is a very severe pest on the foliage of potatoes, tomatoes, egg-plant, and radishes. Control with rotenone dust, which can be bought for use on vegetables. On potatoes

use Bordeaux mixture and calcium arsenate. The Mexican bean beetle is a serious pest on all types of beans if you let it get a start. The adult beetles overwinter and lay masses of yellow, jellylike drops on the underside of the bean foliage. These soon hatch into yellow, fuzzy, worm-like bodies that eat all the leaf tissue except the fibrous veins. If they run out of leaves and remain unchecked, they'll eat the beans. After feeding awhile these larvae go through a resting stage, then appear as yellow, hard-shelled beetles with 16 black spots on their backs. The body is round in comparison with other beetles. Do your spraying and dusting from underneath the leaves while insects are in the soft stage and you can control them rather readily. But after that, you'll have a fight on your hands. Use rotenone dusts or sprays, or a fluorine spray. There are three types of cabbage-leaf-eating worms, and all can be controlled with rotenone dusts. Watch for their first appearance and get after them. They aren't satisfied with eating on one leaf but eat a hole in one and then start on the one underneath.

SHRUBS FOR ODD SPOTS

Snowhill Hydrangea can be used to fill in holes in shrubbery in dense shade. Winterberry has bright red berries in the fall. The leaves drop but the berries hang on until Christmas. It should be in a slightly damp place.

American Holly will thrive in lots of shade and lots of wind. Select your plants when they're in bloom, to be sure of getting one each of both sexes to insure berry production. The red-flowering dogwood is becoming more and more popular for use against white buildings. It will grow in partial shade but should have some sun. Often plants put on the north side of a building don't bloom until they grow large enough for the branches to reach out into the sun.

Spicebush, Arrowwood Viburnum, Summersweet, and pussy-willow will thrive in areas too wet for most other plants. When planting wet areas use small young plants, and plant them shallowly and very late in the spring.

APRIL, 4th Month.

Weeks and Days.	Remarkable Days.	H. w. h.	The Moon. South morn. h. m.	Place & Age	Rises eve. h. m.	Miscellaneous Particulars.	The Sun. slo. m.	rises. h. m.	sets h. m.
13]	*Easter Sunday.*					Day's length 12 hours 39 min			
Sunday	1 *Easter Sun.*	4	2 39	♋18	10 11	♀ sets 8 21 e	4	5 45	6 24
Monday	2 *Easter Mon.*	5	3 24	♋19	11 10	Arctus So. 1 30 m	4	5 43	6 25
Tuesday	3 Ferdinand	6	4 12	♋20	morn	Ell & Y'd sets 10-11e	4	5 41	6 26
Wednesd	4 Ambrosius	6	5 2	♌21	12 9	Reg. So, 9 15 e	3	5 40	6 27
Thursday	5 Maximus	7	5 55	♌22	1 6	5. m'n.low. ♂☾	3	5 38	6 28
Friday	6 Hegisippus	8	6 50	♌23	2 0	♎ rises 8-10 e	3	5 37	6 29
Saturday	7 Aron	9	7 45	♌24	2 49	No. crown rises 6-7 e	2	5 36	6 30
14]	*1st Sunday After Easter--Low Sunday*					Day's length 12 hours. 57 min.			
Sunday	8 Dionysius	10	8 41	♌25	3 33	Aldeba'n sets 10 25 e	2	5 34	6 31
Monday	9 Procborus	11	9 36	♍26	4 13	☌☌☾, ♋ sets 2-4 m	2	5 32	6 32
Tuesday	10 Daniel	12	10 30	♍27	4 49	B. of Orion sets 10 e	2	5 31	6 33
Wednesd	11 Esekiel	1	11 25	♎28	5 23	♂ rises 4 10 m	1	5 29	6 34
Thursday	12 Julius	2	ev. 19	♎ 0	sets eve.	12. ☾ in Perigee ☌☿☾☌♀☾	1	5 28	6 35
Friday	13 *Jefferson born*	2	1 15	♎ 1	8 6	☌☿☉ (Inferior)	1	5 26	6 36
Saturday	14 *Pan Amer.*	3	2 11	♏ 2	9 21	♐ So. 10 30-12 e	0	5 25	6 37
15]	*2nd Sunday After Easter*					Day's length 13 hours 15 min.			
Sunday	15 Olympia	4	3 9	♏ 3	10 34	☌♀☉ (Inferior), ☌♅☾	*fast*	5 23	6 38
Monday	16 Calixtus	5	4 7	♏ 4	11 41	Sickle So. 8 30 e		5 22	6 39
Tuesday	17 Rudolph	6	5 4	♏ 5	morn	☌♄☾ Very Close ☾ highest ♋	0	5 20	6 40
Wednesd	18 *Aeneas*	6	5 59	♐ 6	12 41	Praesepe So 7 e	1	5 18	6 41
Thursday	19 Anicetus	7	6 51	♐ 7	1 33	19. ♎ So. 12-2m	1	5 17	6 42
Friday	20 Sulpitius	8	7 40	♐ 8	2 17	☉ enters ♑	1	5 15	6 43
Saturday	21 Adolarius	9	8 26	♑ 9	2 54	♃ sets 2 42 m	1	5 14	6 44
16]	*3rd Sunday After Easter*					Day's length 13 hours 32 min.			
Sunday	22 Cajus	10	9 9	♑10	3 26	So, Cross So. 10 30e	1	5 13	6 45
Monday	23 *St. George*	11	9 51	♑11	3 55	☌♃☾, Meteors	2	5 11	6 46
Tuesday	24 Albert	12	10 32	♒12	4 20	☌♆☾, ♑ So. 8-9 e	2	5 10	6 47
Wednesd	25 *Mark Evan.*	12	11 13	♒13	4 45	Moon in Apogce	2	5 9	6 48
Thursday	26 SOUTHERN MEMORIAL DAY	1	11 54	♓14	5 10	☌☿♀, ♓ so. 2-3m	2	5 7	6 49
Friday	27 *Grant born*	2	morn	♓15	rises eve	27, Spa so 11 1e	2	5 6	6 50
Saturday	28 Vitalis	3	12 37	♓16	8 5	Arcturus So 11 48 e	2	5 5	6 51
17]	*4th Sunday After Easter*					*Day's length 13 hours 49 min.*			
Sunday	29 Sybilla	3	1 22	♑17	9 5	Crater So. 9-10 e	3	5 3	6 52
Monday	30 Eutropius	4	2 9	♑18	10 4	♄ sets 11 17 e	3	5 2	6 53

April has 30 Days.

MOON'S PHASES, &c.

Last Quarter the 5th, at 2 o'clock 18 minutes in the afternoon; fair.
New Moon the 12th, at 7 o'clock 29 minutes in the morning; unsettled.
First Quarter the 19th, at 2 o'clock 46 minutes in the morning; stormy.
Full Moon the 27th, at 5 o'clock 33 minutes in the morning; rain.

PLANNING THE GARDEN

The most successful gardens are well planned. This planning, of course, and much of the preparation for the garden, should be started in the fall.

The primary object of most vegetable gardens is to supply the family's needs. Therefore, the first planning for the garden should be a liberal estimate of the family's requirements for the ensuing year—fresh vegetables, stored vegetables and canned vegetables. For instance, it is useless to plant squash, if the family cannot be induced to eat squash; better put the ground to sweet corn.

Having determined the kinds of vegetables to plant and the amounts of each that will be required, the necessary garden space is easy to compute, for the row space required for growing definite quantities of the common vegetables is listed in most seed catalogues. The kinds of fertilizers and the amounts needed can be computed with the aid of similar helps.

The selection of varieties is another important detail. Some varieties of cabbage, lettuce, tomatoes and other vegetables will do better in one section than will other varieties of the same vegetables. Then, certain varieties are needed for early planting and others for mid-summer and fall maturity.

Consideration must also be given to the protection of the garden. Order a liberal supply of insect destroyers, remembering that there are two kinds of insects—those that bite and those that suck. For each a separate poison is needed.

The garden should be located near the house, so that the women folks can make hurried trips to it when preparing meals. It should be planted so that it can be cultivated with horse-drawn implements, thus saving much hand labor. For that reason the garden plot should be long and narrow, rather than square. If possible, the rows should run north and south. Take careful stock of your hand implements—rakes, hoes, forks, weeders, etc. A wheel-hoe is a great convenience in most any garden.

Lettuce, radishes and other early-maturing and frequently-used vegetables should be planted in the near end of the garden; the corn, melons and other later maturing and less frequently used ones in the other end.

Careful consideration should be given to the rotation; many plantings can be made in spaces left vacant by the early-maturing crops. Empty spaces soon grow up in weeds. Sweet corn should be planted at intervals of about two weeks so that the supply will continue from the earliest maturity to late fall.

SHRUBS FROM CUTTINGS

Shrub cuttings, six to eight inches long, from the more robust twigs of last season's growth can be rooted if got into the ground now, before the leaf buds start to open. Cuttings need not be made just above, or below buds, and the cut can be straight or slanting.

Plant them in a well-drained spot as soon as soil can be spaded, inserting in a vertical position with not over an inch projecting above the surface. Firm the ground well by treading on it. Three to four inches apart in the row, and rows two feet apart will give ample room for them to grow.

This fall cut each little shrub back to within two inches of the ground to make a more compact plant. Shrubs easily propagated now include golden-bell, hydrangea, Chinese lilac, Persian lilac, weigela, arrowwood, mockorange, highbush cranberry, coralberry, snowberry, spiraea, climbing roses, tamarix and yellow kerria.

When Windows Stick, don't try to force them open, else you may break the glass. Sticking is caused by moisture swelling the wood. Wait for a dry period—then when windows slide easily, coat the guide rails of the frame with soap, paraffin, stick lubricant or the special liquid brush-on lubricants sold in the stores. It's a good idea to use one of these methods even if your windows don't stick—to seal the wood pores and make sure that they won't!

MAY, 5th Month.

Weeks and Days.	Remarkable Days.	H. w. h.	The Moon. South morn. h. m.	Place & Age	rises eve. h. m.	Miscellaneous Particulars.	The Sun. fast m.	rises h. m.	sets h. m.
Tuesday	1 *Philip & James*	4	2 59	♓ 19	11 2	♀ rises 4 50 m	3	5 01	6 54
Wednesd	2 Sigismund	5	3 51	♓ 20	11 57	Moon lowest ♉ ☋	3	5 00	6 55
Thursday	3 *Inv. of Cross*	6	4 44	♓ 21	morn	Aldebaran sets 8 46e	3	4 59	6 56
Friday	4 Florianus	7	5 38	♈ 22	12 46	☾ ♎ so 11 e-1 m	3	4 58	6 57
Saturday	5 Godard	8	6 32	♈ 23	1 31	☾5. ♌ so. 7-9 e	3	4 56	6 58

18] *Rogation 5th Sunday after Easter.* Day's length 14 hours 4 min.

Sunday	6 Aggeus	9	7 25	♓ 24	2 11	♌ sets 9-10 e	3	4 55	6 59
Monday	7 Domicilla	10	8 18	♓ 25	2 46	Crater So. 8-9 e	3	4 54	7 00
Tuesday	8 Stanislaus	11	9 10	♈ 26	3 20	☌♂☾, ♍sets 12-2 m	4	4 52	7 1
Wednesd	9 Job	12	10 3	♈ 27	3 52	☌♀☾, ☌☿☾	4	4 51	7 2
Thursday	10 *Ascen. Day*	12	10 57	♈ 28	4 25	☾ Moon in Perigee	4	4 50	7 3
Friday	11 Mamertus	1	11 53	♉ 0	sets eve.	11. ☿ Greatest Elongation W.	4	4 49	7 4
Saturday	12 Pancratius	2	ev. 51	♉ 1	8 9	♂ rises 3 5 m	4	4 48	7 5

19] *Sunday after Ascension* Day's length 14 hours 19 min.

Sunday	13 *Mothers' Day*	3	1 50	♉ 2	9 21	☌♅☾, Crow So. 9 e	4	4 47	7 6
Monday	14 Servatius	4	2 49	♊ 3	10 27	☌♄☾ very close	4	4 46	7 7
Tuesday	15 Sophia	5	3 47	♊ 4	11 25	Spi. so 9 50e, ☾hi.♌	4	4 45	7 8
Wednesd	16 Perigrinus	5	4 42	♋ 5	morn	Denebola so. 8 10 e	4	4 44	7 9
Thursday	17 Jodocus	6	5 34	♋ 6	12 13	☾ ♌ sets 1-3 m	4	4 44	7 10
Friday	18 *Peace Day*	7	6 22	♋ 7	12 54	18. ♍ rises 11e-1m	4	4 43	7 11
Saturday	19 Potentia	8	7 7	♌ 8	1 29	Regulus sets 1 02 m	4	4 42	7 11

20] *Pentecost - Whit Sunday* Day's length 14 hours 31 min.

Sunday	20 Torpetus	9	7 50	♌ 9	1 58	☌♃☾ .♃ sets 1 44 m	4	4 41	7 12
Monday	21 Prudence	10	8 31	♎ 10	2 25	☉ ent. ♊, ☿☌gt.☌♆☾	4	4 40	7 13
Tuesday	22 *Nat. Mari D.*	10	9 11	♎ 11	2 50	Moon in Apogee	4	4 39	7 13
Wednesd	23 *Ember Day*	11	9 52	♎ 12	3 14	Arcturus So. 10 6 e	3	4 38	7 14
Thursday	24 Esther	12	10 35	♏ 13	3 39	♎ So. 9-11 e	3	4 38	7 15
Friday	25 *Ember Day*	1	11 19	♏ 14	4 6	☾ Deneb so. 4 28m	3	4 37	7 16
Saturday	26 *Ember Day*	1	morn	♐ 15	rises eve.	26. ♐ So. 2-3 m	3	4 37	7 17

21] *Trinity Sunday* Day's length 14 hours 42 min.

Sunday	27 Lucianus	2	12 6	♐ 16	7 58	Milkmds Dip. so 2 m	3	4 36	7 18
Monday	28 Wlliiam	3	12 55	♐ 17	8 57	♏ so. 11 30e-1 30 m	3	4 36	7 19
Tuesday	29 Maximilian	3	1 47	♑ 18	9 53	Crater so. 7 e ♉	3	4 35	7 19
Wednesd	30 *Memorial Day*	4	2 40	♑ 19	10 45	Moon low., Met. ☋	3	4 35	7 20
Thursday	31 *Corpus Chris*	5	3 34	♒ 20	11 31	♄ sets 9 29 e	3	4 34	7 21

May has 31 Days.

MOON'S PHASES, &c.

Last Quarter the 5th, at 1 o'clock 2 minutes in the morning; fair.
New Moon the 11th, at 3 o'clock 21 minutes in the afternoon; blustery.
First Quarter the 18th, at 5 o'clock 12 minutes in the evening; stormy.
Full Moon the 26th, at 8 o'clock 49 minutes in the evening; warmer.

MOWER TUNE-UP

Twice a year take your mower apart and clean out dried grass and dirt. While the mower is apart, reverse the gears in one wheel so the reel runs backward when you turn this wheel. Put valve grinding compound (from your auto dealer) on the reel and blade. Keep tightening the blade and turning the reel backward until the compound wears all the reel blades to fit perfectly with the big cutting blade. Then clean off the compound, and reassemble the wheel. The blade is tightened against the reel by two screws at each end. The screw near the front or sharp edge of the big blade holds the blade away from the reel. The other, near the rear of the blade, pushes the blade toward the reel. The blade pivots in the center between these two screws. To make the blade rub the reel more, loosen the forward screw, and tighten the rear one an equal amount. Just the slightest movement of the adjusting screws affects the blade pressure greatly. The blade shouldn't rub the reel hard; it should just barely touch and be uniform all the way along. When the reel works so hard that you can barely push the mower without skidding the wheels, you're wearing out the metal without results.

To raise the height of cut, lower the wooden roller. To measure accurately the height of cut, hold a match or similar piece of wood upright on a concrete floor, and cut it with the mower. One and one-half inches is the proper bluegrass cut. Set the mower at this level, and leave it there all summer.

GENERAL GARDEN CARE

Cultivation has two main purposes, to keep down the weeds and to keep closed the cracks that are caused by the ground's drying. The loosened soil does help some in aeration of the roots and aids them in making use of all the plant food in the ground. Bonemeal and animal manures are available and can be used in hot weather. Work a little into the ground each week with your regular cultivation. Mulch shrubs to keep weeds down.

PLANT EARLY, OFTEN

First greens to poke their heads above ground in early spring are lettuce, corn salad, green cress (also called peppergrass), mustard, and turnip tops—provided they have been planted as soon as the ground can be worked. What could be better than salads of those first tender lettuce leaves? Plant lettuce varieties that have dark green leaves—the darker the leaf, the more vitamins, you know. Your seed catalogs will help you to make selections, but do try Oakleaf, for one. Plant often, about 10 feet of row at a time. And enjoy every leaf.

Next in order of planting comes spinach—a cool-weather crop that goes in right along with the first lettuce, putting greens on your table in 50 to 60 days from day of planting. Plant only a short row at a time, say 20 feet for a family of four, and get in two or three sowings before the first of June. By so doing, you can eat your greens while the tender young leaves are at their best.

Then get in a row or two of beets, another of turnips, and some Swiss Chard (spaced one foot apart, 12 will be enough). Then a little later make a small planting (say two to five plants per person) of New Zealand Spinach. Such a program will provide—in addition to plenty of lettuce and those very early greens—spinach, beet and turnip tops through June and early July, and Swiss Chard and New Zealand Spinach for late-summer eating. The last two mentioned grow thriftily right through the hot weather. Only the outer leaves of the chard are cut at any one time. It's important to leave the center section to grow more leaves so you get fresh cuttings right up to frost.

GASOLINE IS DANGEROUS

While gasoline is a great help in removing many spots, there is an extreme fire and explosion hazard. No gasoline which is colored or which contains lead should be used **under any circumstances.** If gasoline must be used, it should be only in the open air—away from all fire, even a burning cigarette.

JUNE, 6th Month.

Weeks and Days.	Remarkable Days.	H. w. h.	The Moon. South morn h. m.	Place & Age	rises morn. h. m.	Miscellaneous Particulars.	The Sun. fast m.	rises. h. m.	sets. h. m.
Friday	1 Nicodemus	6	4 28	♑ 21	morn	♀ rises 2 37 m	2	4 34	7 21
Saturday	2 Marcellus	6	5 21	♒ 22	12 12	Acturus so 9 31 e	2	4 33	7 22

22] *1st Sunday after Trinity* — Day's length 14 hours 50 min.

Sunday	3 Erasmus	7	6 13	♒ 23	12 49	3.Ber.Hair so 8e	2	4 33	7 23
Monday	4 Darius	8	7 3	♓ 24	1 21	☌♅☉, ♑so 9-11e	2	4 33	7 24
Tuesday	5 Bonifacius	9	7 54	♓ 25	1 52	Nor. Crown so10-11e	2	4 32	7 25
Wednesd	6 Artenius	10	8 45	♈ 26	2 23	☌♂☾, ☌♀☾	2	4 32	7 26
Thursday	7 Lucretia	11	9 39	♈ 27	2 55	Moon in Perige	1	4 32	7 26
Friday	8 Medardus	12	10 34	♉ 28	3 30	Pol. sets 10 26 e	1	4 32	7 27
Saturday	9 Barnimus	1	11 32	♉ 29	sets eve.	9.☌♄☾.□♃☉☌♅☾	1	4 31	7 27

23] *2nd Sunday after Trinity* — Day's length 14 hours 57 min.

Sunday	10 CHILDREN'S DAY	2	ev. 31	♊ 0	8 7	☌♄♅, ♂ rises 2 3m	1	4 31	7 28
Monday	11 Barnabus	3	1 31	♊ 1	9 10	☌♄☾cl. Mn. high. ♌♒	1	4 31	7 28
Tuesday	12Basilides	3	2 29	♊ 2	10 4	♋ so. 10-12 e	0	4 31	7 29
Wednesd	13 Tobias	4	3 23	♋ 3	10 49	♋ rises 8-10 e	0	4 31	7 29
Thursday	14 *Flag Day*	5	4 14	♋ 4	11 27	Antares so. 10 54 e	slow	4 30	7 29
Friday	15 Vitus	6	5 1	♌ 5	11 59	☌♅☉ Superior		4 30	7 30
Saturday	16 Rolandus	6	5 46	♌ 6	morn	Hercules so. 11-12 e	0	4 30	7 30

24] *3rd Sunday after Trinity* — Day's length 15 hours 0 min.

Sunday	17 *Fathers' Day*	7	6 28	♎ 7	12 28	17.☌♆☾, ♋ RISES 9-11 e	1	4 30	7 30
Monday	18 Arnopolss	8	7 9	♎ 8	12 53	Sickle sets 11e	1	4 30	7 31
Tuesday	19 Gervasius	9	7 49	♎ 9	1 18	☾ in Apogee	1	4 31	7 31
Wednesd	20 Sylverius	10	8 31	♏ 10	1 42	♃ sets 11 47 m	1	4 31	7 32
Thursday	21 Raphael	11	9 14	♏ 11	2 8	☉ enters ♋, SUMMER BEGINS	1	4 31	7 32
Friday	22 Achatius	11	10 0	♐ 12	2 36	♎ rises 12-2 m	2	4 31	7 32
Saturday	23 Agrippina	12	10 49	♐ 13	3 8	Algenib rises 12 16m	2	4 32	7 32

25] *4th Sunday after Trinity* — Day's length 15 hours 1 min.

Sunday	24 *John, Bapt.*	1	11 40	♐ 14	3 44	☌♅♄,♀Gr.Elg, W.	2	4 32	7 33
Monday	25 Elogius	2	morn	♑ 15	rises eve.	25.p.ec.☾□☉♆♉	2	4 32	7 33
Tuesday	26 Jeremiah	2	12 34	♑ 16	8 41	Moon lowest ☋	2	4 33	7 33
Wednesd	27 7 Sleepers	3	1 29	♒ 17	6 30	Algol rises 11 33 e	3	4 33	7 33
Thursday	28 Leo	4	2 24	♒ 18	10 13	Fomalhaut So. 7 44e	3	4 33	7 33
Friday	29 *Peter & Paul*	5	3 18	♓ 19	10 51	♑ So 8-9 e	3	4 34	7 33
Saturday	30 Lucina	6	4 10	♓ 20	11 25	♀ rises 1 59 m	3	4 34	7 33

June has 30 Days.

MOON'S PHASES, &c.

Last Quarter the 3rd, at 8 o'clock 15 minutes in the morning; fair.
New Moon the 9th, at 11 o'clock 26 minutes in the evening; unsettled.
First Quarter the 17th, at 9 o'clock 5 minutes in the morning; showers.
Full Moon the 25th, at 10 o'clock 8 minutes in the morning; pleasant.

JUNE CHORES

All the major garden operations are on the docket for June—planting, cultivating, harvesting, fighting bugs.

The planting list includes vegetables that must wait for a fairly warm soil, such as lima beans, and repeat plantings of crops planted earlier, such as carrots, lettuce. Another planting job is setting out sweet potato and tomato plants.

Vegetables and fruits ready for harvest include beets, chard, carrots, green onions, collards, lettuce, beans, potatoes, peas, kale, strawberries, rhubarb. Take your own measure as a gardener by the number of these you have in June.

Cultivation is needed for all crops in order to keep down weeds (which rob crops of plant food and moisture) and to prevent shading. Some gardeners get the benefits of cultivation by mulching.

Fighting pests is a big job in almost any June garden. Keeping ahead of the bugs is not so difficult as it seems to the garden beginner. Every bug has a vital spot, and for each kind of bug there is a means of control—stomach poisons for the ones that chew their food, contact dusts and sprays for the ones that suck their food from the surface of leaf or stalk.

From various sources you can get pest control charts and guides that tell you how to identify the pests and how to get the best of them. Ask your county agent, or your dealer in garden supplies, or the editor of your favorite farm paper.

REPAIR TREE TRUNKS

Where mice have girdled a tree, where winter injury occurred, or where limbs look likely to split, try bridge-grafting. Pare the edge of the injured bark smoothly. Cut from the tree some strong shoots long enough to bridge across the wound. Bevel both ends of these shoots and insert them under the bark of the trunk. Hold them in place with wire or nail them if they don't remain of their own accord. Cover the cut surfaces with paraffin or grafting wax.

TO REFINISH REED, WICKER OR RATAN

Use a good floor or furniture varnish if you want to keep the natural finish of your pieces. This clear, sturdy stuff is the answer wherever an opaque or colored finish isn't wanted.

Be sure to brush it well into cracks and crannies. But don't have it so thick at these intersections that it can't dry thoroughly, or it will thank you later by strolling off on your clothes.

Maybe you've a garden table crowned with a once-gay canvas umbrella that's weathered its share of sun and storms—and looks it. Here's good news! You can buy a canvas paint prepared especially to give new life and color to your umbrella. It's pie to apply. Just follow the directions on the label.

Best news about this canvas paint, which comes in 10 colors, is that you can use it to paint your awnings, the canvas of your porch or garden chairs, gliders, settees, and hammocks—in fact, anything that's canvas. It has proved successful for resurfacing all types of fiber grass or sisal rugs, so popular for porches. It will leave your fabric pliable, is water-repellent, sunfast, and contains a mildew-killing agent. Pretty good news since there's no canvas for replacements for the duration.

PAINT AWNINGS

If your awnings fail to match the freshness of spring when they're taken from storage, a coat of awning paint will give them new life. Be sure to use one of the special canvas paints made for this purpose; they're sunfast and water-repellent, and will leave the fabric pliable (a most important point). The frames, too, should be checked each spring for rust and corrosion, to avoid rotting of the fabric at points of contact. Any rusted areas on the frames should be sandpapered clean and painted with a metallic enamel.

JULY, 7th Month.

Weeks and Days.	Remarkable Days.	H. w. h.	The Moon. South morn. h. m.	Place & Age	rises eve. h. m.	Miscellaneous Particulars.	The Sun. slo. m.	rises. h. m.	sets. h. m.
26]	*5th Sunday after Trinity.*					Day's length 14 hours 57 min.			
Sunday	1 Theobald	6	5 1	♒21	11 56	☾ ♂ rises 1 19 m	4	4 35	7 32
Monday	2 *Visit. V. M.*	7	5 51	♒22	morn	2. ♒ rises 12-2m	4	4 35	7 32
Tuesday	3 *Dog Day's*	8	6 40	♒23	12 26	Markab rises 9 20 e	4	4 36	7 32
Wednesd	4 *Independence*	9	7 31	♒24	12 56	☾ in Perigee	4	4 36	7 32
Thursday	5 Demetrius	10	8 24	♒25	1 29	⊕ farthest from ☉♂♂☾,♂♀☾ close	4	4 36	7 32
Friday	6 *John Huss*	11	9 19	♓26	2 6	♂♄☉, Lyra So. 11-12e	4	4 37	7 31
Saturday	7 Edelburga	12	10 17	♓27	2 47	♂♅☾, Vega so 11 34 e	5	4 38	7 31
27]	*6th Sunday after Trinity.*					Day's length 14 hours 53 min.			
Sunday	8 Aquilla	1	11 16	♓28	3 35	☾ Ont. so 9 20e ♌	5	4 39	7 31
Monday	9 Zeno	1	ev. 14	♈ 0	sets eve.	9. Mn hst. ♂♄☾ ☽	5	4 39	7 30
Tuesday	10 Israel	2	1 11	♈ 1	8 41	Jobs Coffin So. 2m	5	4 40	7 30
Wednesd	11 Pius	3	2 4	♈ 2	9 23	♂☿☾, ♃ sets 10 30 e	5	4 41	7 30
Thursday	12 Henry	4	2 53	♉ 3	9 58	No. Crown sets 4 m	5	4 41	7 29
Friday	13 *Margaret*	5	3 39	♉ 4	10 28	Gr Cross so 11e–1 m	5	4 42	7 29
Saturday	14 Bonavent.	5	4 23	♉ 5	10 55	♂♃☾ ♋ so 9–11 e	6	4 42	7 29
28]	*7th Sunday after Trinity.*					Day's length 14 hours 45 min.			
Sunday	15 *St. Swithin*	6	5 4	♊ 6	11 20	♀♆☾, ♋ so 9–11 e	6	4 43	7 28
Monday	16 Hilary	6	5 45	♊ 7	11 45	☾ Orion rises 3-4m	6	4 44	7 28
Tuesday	17 Alexius	7	6 26	♋ 8	morn	17. ☾ in Apogee	6	4 45	7 27
Wednesd	18 Maternus	8	7 9	♋ 9	12 10	Altair so 12 4 m	6	4 46	7 27
Thursday	19 Rufina	9	7 53	♋10	12 37	Dragon's Hd so. 9-10e	6	4 46	7 26
Friday	20 Elias	10	8 40	♌11	1 6	Pleiades rise 12 30m	6	4 47	7 25
Saturday	21 Praxedes	11	9 31	♌12	1 41	♄ rises 3 55 m	6	4 48	7 24
29]	*8th Sunday after Trinity.*					Day's length 14 hours 34 min.			
Sunday	22 *Mary Magd.*	12	10 24	♍13	2 21	♂♀♅ (23☿Gr. Elng. E)	6	4 49	7 23
Monday	23 Apollinaris	12	11 19	♍14	3 8	☾ ☉ ent ♍ lst, ♉, ☽	6	4 50	7 23
Tuesday	24 Christiana	1	morn	♎15	rises eve.	24. Hds rise 1 30e	6	4 51	7 22
Wednesd	25 *St. James*	2	12 15	♎16	8 10	Andr'meda so 4–6 m	6	4 51	7 21
Thursday	26 *St. Ann*	3	1 10	♎17	8 50	Rigel rises 3:27 m	6	4 52	7 20
Friday	27 Martha	3	2 5	♏18	9 26	Mira rises 12 7 m	6	4 53	7 19
Saturday	28 Pantaleon	4	2 57	♏19	9 58	Jobs Coffin so 12 30m	6	4 54	7 18
30]	*9th Sunday after Trinity*					Day's length 14 hours 22 min.			
Sunday	29 Beatrix	5	3 48	♐20	10 29	Vega So. 10 27 e	6	4 55	7 17
Monday	30 Abdon	6	4 38	♐21	10 59	☾ ☾ in Perigee	6	4 56	7 16
Tuesday	31 Germanus	7	5 29	♐22	11 31	31. ♀ rises 1 52 m	6	4 57	7 15

July has 31 Days.

MOON'S PHASES, &c.

Last Quarter the 2nd, at 1 o'clock 13 minutes in the afternoon; fair.
New Moon the 9th, at 8 o'clock 35 minutes in the morning; unsettled.
First Quarter the 17th, at 2 o'clock 1 minute in the morning; rain.
Full Moon the 24th, at 9 o'clock 25 minutes in the evening; fair.
Last Quarter the 31st, at 5 o'clock 30 minutes in the evening; hot.

HOW TO IDENTIFY PESTS

Protecting garden plants from pests isn't so hard if you know which pests to watch out for, and something about the damage they do. There are numerous bulletins available, showing pictures of the more common garden insects and samples of their work, and giving directions for control.

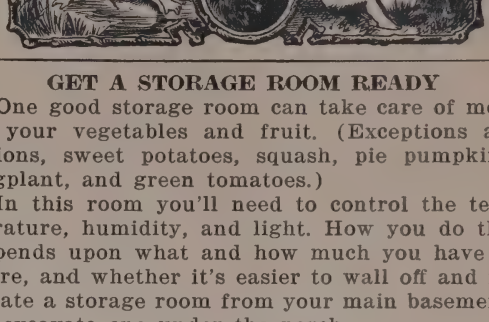
The restrictions on rotenone, safe and effective in controlling garden pests, have been removed so that home gardeners should be able to get all they need. Other safe and effective materials are pyrethrum, nicotine sulphate and cryolite. Rotenone, for example, goes two or three times as far in dusts when combined with a thiocyanate derived from grain alcohol and prussic acid.

Some of the ailments of garden crops are caused by plant diseases rather than plant insects. Prevention and control of these diseases can be accomplished by spraying or dusting. Bulletins on garden pests describe the diseases and tell what to use in spraying and dusting to check trouble.

Plant diseases that affect the leaves, pods and fruits spread from plant to plant during rainy periods. Likewise, the diseases are spread by the gardener who cultivates or picks vegetables when the plants are wet with rain or dew. This applies particularly to beans, tomatoes, eggplants, cucumbers, melons, pumpkins, squash—cultivate or pick when plants are dry.

All too often dry weather is Garden Enemy No. 1. If it is necessary to water the garden, give it a good soaking and then wait until the plants show signs of thirst before watering again. A light sprinkling every day does little good, and may do harm because it encourages the plant roots to stay near the surface of the soil.

To hold soil moisture, keep down all weeds. After rains, as soon as the ground can be worked, cultivate to prevent formation of a soil crust. If soil is cultivated frequently it will absorb more water when rain comes.



GET A STORAGE ROOM READY

One good storage room can take care of most of your vegetables and fruit. (Exceptions are onions, sweet potatoes, squash, pie pumpkins, eggplant, and green tomatoes.)

In this room you'll need to control the temperature, humidity, and light. How you do this depends upon what and how much you have to store, and whether it's easier to wall off and insulate a storage room from your main basement, or excavate one under the porch.

In either case you keep your storage room cold by trapping cold outside air until the temperature inside drops close to freezing. Then you keep it that way.

If the temperature is low enough, it's much easier to keep the air moist and prevent shriveling. But to keep up the relative humidity (so the air won't be dry enough to draw moisture from the fruits and vegetables themselves, which is what causes shriveling) it is sometimes necessary to throw water on the floor. Or with a concrete floor, you may want to cover it with sand or peatmoss and sprinkle this often.

Air near the saturation point is best for most root crops; slightly less humid air is better for apples and potatoes. In any case, you should be conscious of the dampness of the air when you walk into the storage room.

Keeping your room dark is usually fairly simple and a requirement for good storage of all crops stored dry, as well as canned goods.

ONIONS

Pull green onions straight up so as not to break off the bulb. After pulling, the white bulbs are washed; but water is kept off the green tops, for water makes the tops slimy.

To harvest dry or winter onions, wait until the tops begin to fall over naturally, and the leaves begin to look dry. Then go down the rows to step on any tops that are still standing to "break their necks" and check growth. Then in a few days, the whole row can be dug at one time and spread out to dry. Later, cut off the tops, leaving just a neck of the stem to each onion. Winter onions are stored at about 35°F.

AUGUST, 8th Month.

Weeks and Days.	Remarkable Days.	H. w. h.	The Moon. South morn. h. m.	Place & Age	rises morn h. m.	Miscellaneous Particulars.	Sun slo. m.	rises. h. m.	sets. h. m.
Wednesd	1 *Lammas Day*	8	6 20	♐ 23	morn	♂ rises 12 25 m	6	4 57	7 14
Thursday	2 Stephen	9	7 14	♐ 24	12 6	☌♂☾ no. Crn sets 2-3m	6	4 58	7 13
Friday	3 Augustus	10	8 9	♐ 25	12 44	☌♅☾♐ sets 8-9 e	6	4 59	7 12
Saturday	4 Dominic	10	9 6	♑ 26	1 29	☌♀☾, ♐ rises 7–8 e	6	5 0	7 11
31]	*10th Sunday after Trinity.*					Day's length 14 hours 9 min.			
Sunday	5 Oswald	11	10 4	♑ 27	2 21	Moon high, ☌♄☾, ☊, ☠	6	5 1	7 10
Monday	6 *Tr. of Christ*	12	11 0	♐ 28	3 19	Markab so 2 2 m	6	5 2	7 9
Tuesday	7 Donatus	1	11 54	♐ 29	sets eve.	7. Alph. so 3 5m	6	5 3	7 8
Wednesd	8 Emilius	2	ev. 45	♑ 0	7 55	Job's Coffin so12 15m	6	5 4	7 7
Thursday	9 Ericus	3	1 32	♒ 1	8 27	☌♀☾, Harp so 9 e	5	5 5	7 5
Friday	10 *St. Lawrence*	3	2 17	♒ 2	8 56	Meteors 10th–12th	5	5 6	7 4
Saturday	11 *Dog days end*	4	2 59	♒ 3	9 22	☌♃☾, ☌♆☾, ♃ sts 8 40e	5	5 7	7 2
32]	*11th Sunday after Trinity.*					Day's length 13 hours 53 min.			
Sunday	12 Clara	5	3 41	♎ 4	9 46	Altair so 10 25 e	5	5 8	7 1
Monday	13 Hildebert	6	4 22	♎ 5	10 11	Dolphin so 11 30 e	5	5 9	7 0
Tuesday	14 Eusebius	6	5 3	♏ 6	10 37	☾ in Apogee	5	5 10	6 59
Wednesd	15 *Assn. V. M.*	7	5 46	♏ 7	11 5	15. Menk. RISES 11 14 e	5	5 11	6 58
Thursday	16 Rochus	8	6 32	♐ 8	11 37	Gr. Cross so 9-11 e	4	5 12	6 57
Friday	17 Bertram	9	7 20	♐ 9	morn	♀☌♅ Close ♒ rises 1 3m	4	5 12	6 55
Saturday	18 Agapetus	9	8 11	♐ 10	12 14	Deneb so 10 44 e	4	5 13	6 54
33]	*12th Sunday after Trinity.*					Day's length 13 hours 38 min.			
Sunday	19 *St. Joachim*	10	9 5	♑ 11	12 57	Moon lowest ♉, ♒	4	5 14	6 52
Monday	20 Bernard	11	10 1	♑ 12	1 49	☌♀☉ (Inferior)	3	5 15	6 50
Tuesday	21 Rebecca	11	10 57	♒ 13	2 48	☌♀♄ close, ♄ rises 2 9m	3	5 16	6 49
Wednesd	22 Philibert	2	11 53	♒ 14	3 54	Met. 21st–23rd	3	5 17	6 48
Thursday	23 Zacchæus	2	morn	♓ 15	rises eve.	23, ☉ enters ♍	3	5 18	6 47
Friday	24 *St. Barthol.*	2	12 47	♓ 16	7 57	Algol rises 7 45te	2	5 19	6 45
Saturday	25 Ludovicus	3	1 40	♐ 17	8 29	☾ in Perigee	2	5 20	6 43
34]	*13th Sunday after Trinity.*					Day's length 13 hours 21 min.			
Sunday	26 Samuel	4	2 32	♐ 18	9 1	♐ so 10–12 e	2	5 21	6 42
Monday	27 Gebhard	5	3 24	♐ 19	9 32	Lyra so 7 30–8 30 e	2	5 22	6 40
Tuesday	28 *St. Augustin*	6	4 16	♐ 20	10 6	S. so 8 30-10 30e	1	5 23	6 39
Wednesd	29 *St. John beh.*	6	5 10	♒ 21	10 44	29. Rig. ri. 1 14m	1	5 24	6 37
Thursday	30 Benjamin	7	6 5	♒ 22	11 27	☌♅☾, J. Cof. so 10 30e	1	5 25	6 35
Friday	31 Paulinus	8	7 1	♓ 23	morn	☌♂☾ clo ♀ rises 2 26 m	0	5 26	6 33

August has 31 Days.

MOON'S PHASES, &c.

New Moon the 7th, at 7 o'clock 32 minutes in the evening; unsettled.

First Quarter the 15th, at 7 o'clock 26 minutes in the evening; fair.

Full Moon the 23rd, at 7 o'clock 3 minutes in the morning; hot.

Last Quarter the 29th, at 10 o'clock 44 minutes in the evening; dry.

GUARD PLANTS NOW AGAINST DISEASES

This is the season when gardeners can expect attacks of disease even in gardens that are cared for intelligently and regularly. These diseases cause spots on leaves, stems or in the case of beans or peas the pods of the plants may be attacked. Occasionally if the disease is virulent the entire plant may wilt and die.

In the case of the garden that is planted in fertile soil or where the plants have been regularly dusted and sprayed and therefore have few insects and where the weeds have been kept uprooted, while attacks of disease may appear in any part of the garden, such attacks are rarely fatal because in a well tended garden the plants can withstand them.

Sunshine, a free circulation of air and an absence of insects and weeds as well as good feeding help the plants resist disease. A gardener can minimize such attacks by making it a rule to remove all yellowing or wilting leaves as they work among the plants. Plant debris, which carries insect eggs and disease spores, should be collected and burned. Never add such material to your compost pile. Another rule that should be observed is to keep away from the garden when the plants are wet with dew or immediately after a heavy rain when the foliage is still damp. Damp, humid weather favors disease and the spores can easily be carried from plant to plant by the gardener's hands, clothing or by garden implements.

RIGHT TOOLS SAVE MONEY

A twelve-dollar set of tools in a handy carrying case will easily pay 100 per cent of its investment every year. Such a set can be used to repair breakdowns in the field and will often save the extra work of getting a machine to the farm shop.

This amount will buy a metal tool kit, 12 double-end wrenches from ¼ to 1½ inches, a 6-inch and a 10-inch crescent wrench, a pair of pliers, screw-driver, cold chisel, hack saw, ball-peen hammer, punches, files, and a socket wrench set which consists of a ratchet, long and short extension bars and speeders, a universal, an angle handle, and 19 hexagon sockets from 5-16 to 1¼ inches.

The most important item is the metal tool kit, which keeps the tools assembled, ready for a quick job. This kit should have a removable tray for an assortment of washers, screws, bolts, nuts, and cotterkeys, and every tool should have its place in the box. The socket wrench set can be handled best in a separate case.

HOW TO DRIVE BUNNIES FDOM CABBAGE PATCH

1. Place a "fence" of twine soaked in creosote and attached to sticks around the garden about a foot outside the borders.

2. Or dot the garden with camphor balls.

3. Or sprinkle it with wood ashes and pepper. Presumably the rabbits sneeze to death.

4. Or spray the plants with a diluted solution of epsom salt.

There are, of course, other ways of keeping rabbits from gardens not included in the list of suggestions. In ancient England, people shot them. People also shoot them in modern England. Natives of Greenland, on the other hand, have combated the trouble by traditional measures. They lay off planting gardens.

The English method is discouraged by resident game authorities, who believe that, since most hunters cannot fire at a rabbit in an open field without hitting a cow, it would be discomforting to neighbors in a more thickly populated area.

Sticky Corks, hard to remove from glue bottles or bottles containing sugary liquids, may be fixed in one of three ways so that all the contents of the bottle may be used conveniently. 1. Rub sides of cork well over a paraffin block. The wax coating will prevent sticking. 2. Cover cork with a small piece of waxpaper before inserting. 3. Replace cork with a stopper tapered to size, cut from a candle.

SEPTEMBER, 9th Month.

Weeks and Days.	Remarkable Days.	H. w. h.	The Moon. South morn. h. m.	Place & Age	rises morn. h. m.	Miscellaneous Particulars	The Sun. fast m.	rises. h m.	sets. h. m.
Saturday	1 Ægidius	9	7 58	♒ 24	12 16	Moon highest ♌☊	0	5 27	6 31
35]	*14th Sunday after Trinity.*					Day's length 13 hours 2 min.			
Sunday	2 Hannah	10	8 54	♒ 25	1 11	♂♄☾, ☿ rises 2 30 m	0	5 28	6 30
Monday	3 *Labor Day*	11	9 48	♓ 26	2 11	♂☿☾, ♊ rises 12–2 m	0	5 29	6 29
Tuesday	4 Ida	12	10 39	♓ 27	3 13	♂☿☾, ♐ so 3-4 m	1	5 30	6 28
Wednesd	5 Nathaniel	1	11 27	♈ 28	4 17	Alde. ris. 10 39e	1	5 31	6 26
Thursday	6 Magnus	1	ev. 12	♈ 0	sets eve.	6.☿ Gr. Elng. W.	1	5 32	6 24
Friday	7 Regina	2	12 55	♉ 1	7 24	♂♃☾, Ca. rises 1216m	2	5 33	6 23
Saturday	8 *Heb. N. Yr.*	3	1 37	♉ 2	7 49	♂♆☾ Aqui so 8-9 e	2	5 34	6 21
36]	*15th Sunday after Trinity.*					Day's length 12 hours 44 min.			
Sunday	9 Bruno	3	2 18	♉ 3	8 13	M.M. D, sets 10-11e	2	5 35	6 19
Monday	10 Pulcheria	4	2 59	♋ 4	8 38	□♅☉,☾ in Apogee	3	5 36	6 18
Tuesday	11 Protus	5	3 42	♋ 5	9 5	♂ rises 11 24 e	3	5 36	6 17
Wednesd	12 *Defense Day*	6	4 26	♌ 6	9 35	Hyades rise 10 e	3	5 37	6 15
Thursday	13 Amatus	6	5 12	♌ 7	10 9	♎ sets 8-10 e	4	5 38	6 13
Friday	14 *Exalt. Holy* ✝	7	6 1	♌ 8	10 49	14. Den. so 9 8 e	4	5 39	6 11
Saturday	15 Nicetas	8	6 53	♊ 9	11 36	Procy- rises 1 43m ♉	5	5 40	6 9
37]	*16th Sunday after Trinity.*					Day's length 12 hours 26 min.			
Sunday	16 Euphemia	9	7 47	♍ 10	morn	Moon lowest ☋	5	5 41	6 7
Monday	17 *Consti. Day*	10	8 42	♍ 11	12 31	Aldeb so 4 50 m	5	5 42	6 6
Tuesday	18 Siebfried	11	9 37	♍ 12	1 33	Betelgus rises 11 32e	6	5 43	6 5
Wednesd	19 *Ember Day*	12	10 32	♎ 13	2 40	Acturus sets 9 30 e	6	5 44	6 3
Thursday	20 *St. Matthew*	12	11 26	♎ 14	3 52	Hya. so 4 40 m.	6	5 45	6 1
Friday	21 *Ember Day*	1	morn	♏ 15	rises eve.	21. ♄ ris 12 24 m	7	5 46	5 59
Saturday	22 *Ember Day*	2	12 20	♏ 16	6 58	☾ in Perigee	7	5 47	5 58
38]	*17th Sunday after Trinity.*					Day's length 12 hours 9 min.			
Sunday	23 Hoseas	3	1 13	♐ 17	7 30	☉ent ♎, Autmn ♂☿♆	7	5 48	5 57
Monday	24 *St. John con.*	4	2 7	♐ 18	8 4	No. Crown sets 11 e	8	5 49	5 55
Tuesday	25 Cleophas	4	3 2	♑ 19	8 42	Androme so 12-2m	8	5 50	5 53
Wednesd	26 Justina	5	3 58	♑ 20	9 23	♂♅☾, ♐ rises 7-9 e	8	5 51	5 51
Thursday	27 Cosmus	6	4 56	♑ 21	10 12	♐ so 11-12 e	9	5 52	5 50
Friday	28 Wenceslaus	7	5 53	♒ 22	11 6	28, ht, ♂☾cl. ♌☊	9	5 53	5 48
Saturday	29 *St. Michael*	8	6 50	♒ 23	morn	♂♆☉♂♄☾	9	5 54	5 46
39]	*18th Sunday after Trinity.*					Day's length 11 hours 49 min.			
Sunday	30 GOLD STAR MOTHER'S DAY	9	7 45	♓ 24	12 5	♂☿♆, ☿ rises 3 26 m	10	5 55	5 44

September has 30 Days.

MOON'S PHASES, &c.

New Moon the 6th, at 8 o'clock 43 minutes in the morning; fair.
First Quarter the 14th, at 12 o'clock 38 minutes in the afternoon; unsettled.
Full Moon the 21st, at 3 o'clock 46 minutes in the afternoon; rain.
Last Quarter the 28th, at 6 o'clock 24 minutes in the morning; stormy.

TREES CAN BE MOVED SAFELY WITH PROPER CARE

As growth begins to harden and the leaves change color, nearly all deciduous shade and ornamental trees may be moved if a ball of earth is held around the roots. If it is not feasible to take that precaution, it will be better to wait until after the first heavy frost has made the plants completely dormant, when all but the larger sizes and a few of the more tender species may be moved with bare roots.

All kinds of trees may be transplanted successfully in the fall, provided proper care is taken. The following trees are among those most frequently mentioned as difficult to move, together with the preferred methods of handling them.

May Show Ill Effects

Beech, move with a ball of earth and wrap main trunk and branches with burlap for the first winter; birch, handle in a similar manner; dogwood, move with a ball of earth; elm and maple, move bare root; magnolia, move with a ball of earth; poplar, move bare root; sweet gum and tulip tree, move with ball of earth and wrap trunk and main branches the first winter; hawthorn, move with a ball of earth.

Of these, the birch, magnolia, sweet gum and tulip tree are the most likely to show some ill effects from late fall planting. However, move as early as possible and following the procedure suggested, they have come through with the same success as the oaks, lindens, flowering crabapples, cherries and others on the hardier list.

After transplanting, be certain that plenty of moisture is maintained in the area around the roots. After the ground has frozen, cover with a mulch of salt hay, oak leaves or peat moss to prevent alternate thawing and freezing during the first winter. In thinning and reshaping the top, cut back approximately one-half.

Trees Dominate Landscape

It will also benefit even the smallest tree if it is guyed to a stout stake planted alongside the tree. A simple system of three guy wires may be used to hold the trunk and main branches from being too vigorously swayed by winter winds that would loosen the tree in the ground. By following those precautions, tree planting may be carried out until the ground becomes lumpy from frost. Then planting should cease until the spring.

Trees are the dominating element in the landscape composition, especially on the smaller property, because they occupy so much valuable space and in mature form are larger than any other kind of plant material.

The large specimen trees provide shade for lawn, garden and house at definite times of the day but never should be located where, in mature form, they will create undesirable shade, especially for the flower garden area. For that reason the position of trees to be planted along the east and south sides of the garden must be studied carefully so they do not eventually cast too great a shade.

CARE OF OVENS

The interior of ovens and broiler compartments should be cared for each time they are used. First, it is wise to leave the door open while they are cooling so they will dry out and no moisture will be deposited on the walls.

When the oven is cool, if there has been any spillage, use a mild cleansing powder or fine steel wool. Most oven bottoms can be removed for cleaning. Never put them into water, for this will dampen and impair the efficiency of the insulation between the two metal plates. Wash the outside parts with a cloth wrung out of soapy water, then rinse them and dry them. Occasionally wash the sides, bottom, door and racks of your oven or broiler compartment with soap and warm water. Rinse and wipe it dry. After use, remove the broiler pan and grill from your broiler compartment just as soon as the food has been served. Allow it to cool and wash it as you would any cooking utensil of the same material.

OCTOBER, 10th Month.

Weeks and Days.	Remarkable Days	H. w. h.	The Moon. South morn h. m.	Place & Age	The Moon. rises morn h. m.	Miscellaneous Particulars	The Sun. fast m.	The Sun. rises. h. m	The Sun. sets. h. m.
Monday	1 Remigius	10	8 36	♑ 24	1 6	♂☌☉, ♂☿☌	10	5 56	5 43
Tuesday	2 Vollaradus	11	9 24	♑ 25	2 9	♂ rises 10 53 e	10	5 57	5 42
Wednesd	3 Jairus	12	10 10	♑ 26	3 11	♂♀☾, Algol So 2 14 m	11	5 58	5 40
Thursday	4 Franciscus	12	10 53	♑ 27	4 12	Eagle sets 1 m	11	5 59	5 38
Friday	5 Placidus	1	11 35	♑ 28	5 11	☌♂Ψ☾, ☌☌☾	11	5 59	5 36
Saturday	6 Fides	2	ev. 16	♑ 0	sets eve.	6.♂☿☾♒so12-1m	12	6 0	5 35
40]	*19th Sunday after Trinity.*					Day's length 11 hours 33 min.			
Sunday	7 Amelia	2	12 57	♋ 1	6 41	El. Nath So 1 54 m	12	6 1	5 34
Monday	8 Pelagius	3	1 39	♋ 2	7 7	☾ in Apogee	12	6 2	5 32
Tuesday	9 Dionysius	4	2 22	♋ 3	7 36	Job's Coffin so 8 e	12	6 3	5 30
Wednesd	10 Gideon	4	3 8	♌ 4	8 8	Hyades so 3 m	13	6 4	5 28
Thursday	11 Burkhard	5	3 55	♌ 5	8 45	□♂☉, ☌ rises 5 30 m	13	6 5	5 26
Friday	12 *Columbus Day*	6	4 45	♌ 6	9 28	Orin ris 9 30-10 30e♉	13	6 6	5 25
Saturday	13 Coloman	6	5 37	♌ 7	10 19	Moon lowest ♉	14	6 8	5 24
41]	*20th Sunday after Trinity.*					Day's length 11 hours 14 min.			
Sunday	14 Calixtus	7	6 30	♌ 8	11 16	14.♌ sets 9-11e	14	6 9	5 2^3
Monday	15 Hedwig	8	7 24	♍ 9	morn	Alph'z so 10 30e	14	6 10	5 2^1
Tuesday	16 *Gallus*	9	8 17	♍ 10	12 19	♌ so. 6-8 e	14	6 11	5 1^9
Wednesd	17 Florentina	10	9 10	♎ 11	1 28	Aldebaran so 2 48 m	14	6 12	5 1^8
Thursday	18 *St. Luke ev.*	11	10 3	♎ 12	2 39	□♄☾, Lyra sets 1-2m	15	6 13	5 1^7
Friday	19 Ptolemy	12	10 56	♐ 13	3 53	□ of Pegasus so 8-10 e	15	6 14	5 1^6
Saturday	20 Felicianus	1	11 50	♐ 14	5 8	♄ rises 10 38 e	15	6 15	5 14
42]	*21st Sunday after Trinity.*					Day's length 10 hours 57 min.			
Sunday	21 Ursula	2	morn	♐ 15	rises eve.	21. ☾ in Perigee	15	6 16	5 13
Monday	22 Cordula	2	12 46	♐ 16	6 34	Mira so 12 12 m	15	6 17	5 12
Tuesday	23 Severinus	3	1 43	♑ 17	7 15	☉ enters ♏	16	6 18	5 10
Wednesd	24 Salome	4	2 43	♑ 18	8 2	♂♅☾, ♂♀Ψ (close)	16	6 19	5 9
Thursday	25 Crispin	5	3 43	♒ 19	8 56	♑ so 9–11 e ♌	16	6 20	5 8
Friday	26 Amandus	6	4 42	♒ 20	9 55	☾Chi.♂♂♄cl♂♄☾♓	16	6 21	5 7
Saturday	27 *Navy Day*	6	5 39	♓ 21	10 58	27. ♂♂☾ (close)	16	6 22	5 5
43]	*22nd Sunday after Trinity.*					Day's length 10 hours 39 min.			
Sunday	28 *Christ The King*	7	6 33	♓ 22	morn	Lyra sets 12-1 m	16	6 24	5 3
Monday	29 *Zwinglius*	8	7 23	♈ 23	12 1	♒ rises 10 30–11 30e	16	6 25	5 2
Tuesday	30 Serapion	9	8 9	♈ 24	1 4	♂♀☌(clo)♓sts 11-12e	16	6 27	5 1
Wednesd	31 Hallowen *REFORMATION*	10	8 53	♈ 25	2 5	♀rises 4 36 m	16	6 28	5 0

October has 31 Days.

MOON'S PHASES, &c.

New Moon the 6th, at 12 o'clock 22 minutes in the morning; colder.

First Quarter the 14th, at 4 o'clock 38 minutes in the morning; stormy.

Full Moon the 21st, at 12 o'clock 32 minutes in the morning; windy.

Last Quarter the 27th, at 5 o'clock 30 minutes in the evening; gales.

SMALL ELECTRIC MOTOR DOES MANY JOBS

A farmer who owned an electric light and power plant has installed a one-quarter horsepower electric motor on a bench in the basement. Three wheels have been provided, too. One of these is an ordinary emery-wheel of rather small diameter with which knives, etc., are sharpened. Another is a scouring wheel, home-made, for cleaning pots and pans and frying pans. It was made by cutting a number of circles of cloth (old and heavy) four inches in diameter, to make a pile one-half inch thick. These were clamped on the motor shaft and the edges dipped in hot, diluted glue. While still soft, emery-powder was sprinkled over the glue and the whole allowed to harden. This will take charred substances or soot from any utensil in a hurry and with no effort.

The third wheel is a wooden disk one inch thick and four inches in diameter upon which has been glued a strip of canvas. This surface was coated with glue and a much finer abrasive powder sprinkled on. This wheel is used for removing rust, etc.

The motor, when in use, takes current equal to about two 50-watt lamps.

DRAWERS AND DOORS THAT STICK

Dampness or humidity is the cause. The remedy, when the offender is stuck tight, is time and normal heat from the furnace. Never force a tightly swollen drawer or door. If you must get inside, have a cabinetmaker take over.

When a drawer (or door) sticks slightly or pulls hard in dry weather, that's your cue to get busy with No. 0000 sandpaper and a greaseless crayon stick or a bar of paraffin. Remove the drawer, find out where it's rubbing (you can see the friction spots) and sand those areas thoroughly but gently, until the push-pull is smooth and effortless. Rub center drawer guides, and all friction edges of the drawer and case. Good results can also be obtained by using paste or liquid wax to rub on edges.

ORCHARD SANITATION

Remove or burn any trash which may be in the orchard, and burning about the margins of the orchard are the principal lines of attack and with some pests are very effective.

Perhaps the most important enemy which we get at through this method is the plum curculio, in many sections one of our most serious apple insects, as well as being a menace to plums and peaches.

But various types of leaf hoppers also pass the winter hibernating in such places and would thus be killed by the burning. And since apple scab passes the winter on the old leaves about the orchard, just so far as we reduced the supply of these infected old leaves by burning them up, we would control this disease.

There are probably other pests which might be affected to a certain extent, but even with this list the operation is well worth while.

The work may be done, of course, at any time after the leaves fall and become thoroughly dry in the autumn, but perhaps the best time is in early spring after leaves and grass have had a chance to dry out from the winter's snows. Whenever the burning is done it is important that things should be fairly dry so that the fire will burn well down to the surface of the ground; otherwise many of the insects may escape destruction. And of course great care must be exercised to see that the fire does not get into the orchard in the event of its being a sod block.

INDIAN SUMMER

In early November, when the leaves and candidates have fallen, come a few warm days, with a haze in the air that filters the sunlight and a smell of burning brush. That is Indian Summer.

It is the time of the year that the aborigines loved, a time pleasant for travel. Country people, exiles in the city, have long chosen it for visits to their old homes.

People often misplace this brief season. One hears in any bright spell after Labor Day, "This is Indian Summer." Never, however, with the leaves on the trees.

NOVEMBER, 11th Month.

Weeks and Days.	Remarkable Days.	H. w. h.	The Moon. South morn. h. m.	Place & Age	The Moon. rises morn h. m.	Miscellaneous Particulars.	The Sun. fast m.	The Sun. rises. h. m.	The Sun. sets. h. m.
Thursday	1 *All Saints*	11	9 34	♎ 26	3 5	♂☿☾. ♂ rises 9 56 e	16	6 29	4 58
Friday	2 *All Souls*	12	10 15	♎ 27	4 3	♂♃☾, ♂♀☾	16	6 30	4 57
Saturday	3 Hubert	1	10 56	♏ 28	5 1	♌ rises 8-10 e	16	6 31	4 56
44]	*23rd Sunday after Trinity.*					Day's length 10 hours 23 min.			
Sunday	4 Charlotte	1	11 38	♏ 0	sets eve.	4. ☾ in Apogee	16	6 32	4 55
Monday	5 Malachi	2	ev. 20	♏ 1	5 38	Pleiades So 1 m	16	6 33	4 54
Tuesday	6 *Gen. Electin*	3	1 5	♐ 2	6 9	♂☿☾, ♑ so. 11-12 e	16	6 34	4 53
Wednesd	7 Engelbert	3	1 52	♐ 3	6 44	Seg. of Per. so 12-1m	16	6 35	4 52
Thursday	8 Godfrey	4	2 41	♑ 4	7 26	Moon lowest ♉	16	6 36	4 51
Friday	9 Theodore	5	3 32	♑ 5	8 13	♋ sets 5-7 e	16	6 37	4 50
Saturday	10 *Mart. Luther*	5	4 24	♑ 6	9 7	♒ so 9-10 e	16	6 38	4 49
45]	*24th Sunday after Trinity.*					Day's length 10 hours 9 min.			
Sunday	11 *ARMISTICE DAY MELANCHTHON*	6	5 16	♒ 7	10 7	♃ rises 4 0 m	16	6 39	4 48
Monday	12 Jonas	7	6 8	♒ 8	11 12	12. J. C. sets 1m	16	6 41	4 47
Tuesday	13 Winebert	8	7 0	♓ 9	morn	Algenib so 8 41 e	16	6 42	4 46
Wednesd	14 Levinus	9	7 50	♓ 10	12 19	♐ sets 7–9 e	16	6 43	4 45
Thursday	15 Leopold	10	8 41	♈ 11	1 29	Andromeda so. 9-10e	15	6 44	4 44
Friday	16 Ottomar	11	9 33	♈ 12	2 41	Mirach so 9 25 e	15	6 46	4 44
Saturday	17 Alpheus	12	10 27	♈ 13	3 54	☿ Gr. El. Eastof ⊙	15	6 47	4 43
46]	*25th Sunday after Trinity.*					Day's length 9 hours 54 min.			
Sunday	18 Gelasius	1	11 23	♉ 14	5 10	☾ in Perigee	15	6 48	4 42
Monday	19 *Elizabeth*	1	morn	♉ 15	rises eve.	19. Hyades so 9e	15	6 49	4 41
Tuesday	20 Amos	2	12 22	♊ 16	5 48	♂♅☾, Eagle sts 9-10e	14	6 50	4 40
Wednesd	21 *Off. V. Mary*	3	1 24	♋ 17	6 40	♄ rises 8 32 e ♌	14	6 51	4 40
Thursday	22 Alphonsus	4	2 26	♋ 18	7 39	⊙ enters ♐, M hi ♒	14	6 52	4 39
Friday	23 Clement	5	3 27	♌ 19	8 42	♂♄☾, ♂♂☾ (close)	14	6 53	4 39
Saturday	24 Chrisogenus	5	4 24	♌ 20	9 48	Swan sets 12-2 m	13	6 54	4 38
47]	*26th Sunday after Trinity*					Day's length 9 hours 43 min.			
Sunday	25 Catherine	6	5 17	♌ 21	10 54	Alde. so 12 15m	13	9 55	4 38
Monday	26 Conrad	7	6 6	♍ 22	11 56	26. ♐ so. 6-7 e	13	6 56	4 37
Tuesday	27 Jehosaphat	8	6 51	♍ 23	morn	♌ so 1-3 m	13	6 57	4 37
Wednesd	28 Guenther	9	7 33	♎ 24	12 57	Orion so 1 m	12	6 58	4 37
Thursday	29 *Thanks Day*	10	8 15	♎ 25	1 56	♂♆☾, ♑ sets 9-10 e	12	6 59	4 36
Friday	30 St, Andrew	11	8 55	♎ 26	2 54	♂♃☾, ♀ rises 5 48 m	12	7 01	4 36

November has 30 Days.

MOON'S PHASES, &c.

New Moon the 4th, at 6 o'clock 11 minutes in the evening; unsettled.
First Quarter the 12th, at 6 o'clock 34 minutes in the evening; colder.
Full Moon the 19th, 10 o'clock 13 minutes in the morning; rain or snow.
Last Quarter the 26th, at 8 o'clock 28 minutes in the morning; fair.

STORING FRUIT

Winter storage of fruits has taken on new importance to many families this year. Commercial storage facilities are available to only a few, but there are many ways of storing fruit at home.

Three principal factors in home storage are temperature, ventilation and humidity. The best storage conditions for apples and pears are temperatures from 32 to 35 and a humidity of about 85 per cent. Most home storage spaces won't reach the optimum temperature until cold weather sets in, but by proper insulation and use of outdoor temperatures on cold nights, fairly steady and declining temperatures can be maintained. At any rate, one of the first requisites for storage is a good thermometer.

A section of the basement, as for example a corner away from the heating plant with one or two outside windows, will be the best location for storage in many homes. Shavings and sawdust as well as commercial insulating materials may be used to insulate the inside walls of the storage space. Occasionally a casement window areaway may be expanded into a storage space. There also is the possibility of using space in the garage, building a box storage bin, with one box placed inside another, using shavings or sawdust in the space between for insulation.

Few people appreciate the importance of maintaining proper humidity. They realize that something is wrong when fruit begins to shrivel and dry up, but don't know what to do about it. Humidity is controllable to a large extent in home storage and should be kept high or the fruit will dry out. Sprinkling the floors and walls of the storage room once or twice a week is helpful in maintaining good humidity, or a simple atomizing spray, such as a small paint-spray nozzle, can be used to put water into the air.

Apples and pears may be stored in the same room, and from a practical standpoint these fruits may be in the same room with potatoes and some other vegetables. However, fruits readily take up odors given off by some vegetables, and should not be placed with cabbage, turnips, and onions.

KEEPING CARBURETOR IN ADJUSTMENT

The carburetor of the gas-engine has a delicate job to do, and it requires careful handling if it is to work most satisfactorily. Do not look upon the carburetor with awe, however; get acquainted with it and it will be much easier to get along with.

Adjustments of the needle-valve and air-valve must be made when the engine is operating under a load. It is a waste of time to work upon them with the engine idling.

When beginning to make adjustments, open the needle-valve one and one-half or two turns; this will be too much, but the engine will start, after which the changes can be made as desired.

Start the engine; there will in all probability be a cloud of black or gray smoke forced out of the exhaust. This and the sluggish way in which the engine runs are indications of too rich a mixture.

Close the needle-valve down until the engine picks up speed and is running evenly without black smoke coming from the exhaust. Do not confuse the colors of the smoke; the light blue is caused by too much lubricating oil and is rather a good evil, unless the level is high.

Continue to close the needle-valve until the engine begins to spit and misfire occasionally, showing too lean a mixture, then carefully and slowly open the valve until the motor runs smoothly. This is the position in which the needle should be left. It is quite necessary to make this last adjustment slowly.

Do not change the needle-valve again when starting, but use the choke as it is intended to be used for starting. Opening the needle-valve does not give nearly so good a mixture for starting as can be obtained by making use of the choke, thus getting the same quality of mixture into the cylinders for starting as when the engine is operating under a heavy load.

DECEMBER, 12th Month.

Weeks and Days.	Remarkable Days.	H. w. h.	The Moon. South morn. h. m.	Place & Age	rises morn h. m.	Miscellaneous Particulars.	The Sun. fast m.	rises. h. m.	sets. h. m.
Saturday	1 Longinus	11	9 36	♋ 27	3 52	☾ in Apogee	11	7 2	4 36
48]	*1st Sunday in Advent.*					Day's length 9 hours 32 min.			
Sunday	2 Candidus	12	10 18	♋ 28	4 50	♂ rises 8 29 e	11	7 3	4 35
Monday	3 Fr. Xavier	1	11 3	♌ 29	5 49	☌☿☾, ♎ ri, 5-6 m	10	7 4	4 35
Tuesday	4 Barbara	1	11 49	♌ 0	sets eve.	4. Alg so 7 18 e	10	7 5	4 35
Wednesd	5 Abigail	2	ev. 38	♌ 1	5 24	☌☿☾ (close) ♉	10	7 6	4 35
Thursday	6 *St. Nicholas*	3	1 29	♌ 2	6 10	Moon lowest ☽	9	7 7	4 35
Friday	7 Ambrose	3	2 21	♌ 3	7 2	☌♅☉, ♐ so 9-11 e	9	7 8	4 35
Saturday	8 *Conc. V. M.*	4	3 13	♌ 4	8 1	Monkar so 9 50 e	8	7 9	4 35
49]	*2nd Sunday in Advent.*					Day's length 9 hours 25 min.			
Sunday	9 Joachim	5	4 5	♌ 5	9 3	Capella so 12 3 m	8	7 10	4 35
Monday	10 Judith	6	4 55	♍ 6	10 9	Alpheratz sts 2 42 m	7	7 10	4 35
Tuesday	11 Barsabas	6	5 45	♍ 7	11 16	♃ rises 2 29 m	7	7 11	4 35
Wednesd	12 Ottilia	7	6 34	♍ 8	morn	12. ☌☿♀, ♎ so 7-9 e	7	7 12	4 35
Thursday	13 Lucy	8	7 23	♎ 9	12 24	Hyades so 11 e	6	7 13	4 35
Friday	14 Nicasius	9	8 13	♎ 10	1 34	Castor so. 1 58 m	6	7 14	4 36
Saturday	15 Ignatius	10	9 6	♎ 11	2 46	Job's Cof. sets 10 e	5	7 14	4 36
50]	*3rd Sunday in Advent.*					Day's length 9 hours 21 min.			
Sunday	16 Ananias	11	10 2	♏ 12	4 0	Pollux so 2 1 m	5	7 15	4 36
Monday	17 Lazarus	12	11 2	♏ 13	5 16	☾ in Perigee	4	7 16	4 36
Tuesday	18 Arnold	1	morn	♏ 14	rises eve.	18. ☌♅☾	4	7 16	4 37
Wednesd	19 *Ember Day*	2	12 4	♐ 15	5 18	☾ high., Eclipse of ☾	3	7 17	4 37
Thursday	20 *St. Thomas*	3	1 7	♐ 16	6 21	☌♄☾, ♄ rises 6 31 e	3	7 17	4 37
Friday	21 *Ember Day*	3	2 8	♐ 17	7 28	☌☌☾ close	2	7 18	4 37
Saturday	22 *Ember Day*	4	3 4	♐ 18	8 35	☉ en's ♐ Winter beg's	2	7 19	4 38
51]	*4th Sanday in Advent*					Day's length 9 hours 19 min.			
Sunday	23 Victoria	5	3 57	♑ 19	9 42	Betelgues so 11 45 e	1	7 19	4 38
Monday	24 Adam, Eve	6	4 45	♑ 20	10 45	Gr, Cross sets 10 12 e	1	7 20	4 39
Tuesday	25 *Christmas*	6	5 29	♑ 21	11 46	Orion so 11 e	0	7 20	4 39
Wednesd	26 Stephen	7	6 12	♑ 22	morn	26 ☿ G.E, W. of ☉	slow 7	21	4 40
Thursday	27 *John, Evang.*	8	6 53	♑ 23	12 45	☌♃☾, ♐ rises 7-9 e	7	21	4 41
Friday	28 H. Innocents	9	7 33	♒ 24	1 43	Sirius so. 12 18 m	1	7 21	4 42
Saturday	29 Noah	10	8 15	♒ 25	2 41	☾ in Apogee	2	7 22	4 43
52]	*1st Sunday after Christmas*					Day's length 9 hours 22 min.			
Sunday	30 David	11	8 58	♒ 26	3 40	□♆☉, ♑ so 11 e-1m	2	7 22	4 44
Monday	31 *N. Year's E.*	12	9 44	♓ 27	4 39	♂ rises 6 57 e	3	7 22	4 45

December has 31 Days.

MOON'S PHASES, &c.

New Moon the 4th, at 1 o'clock 6 minutes in the afternoon; snow or rain.
First Quarter the 12th, at 6 o'clock 5 minutes in the morning; windy.
Full Moon the 18th, at 9 o'clock 17 minutes in the evening; colder.
Last Quarter the 26th, at 3 o'clock in the morning; fair.

HIT WHEN BORERS NAP

One of the times to strike the borer is when he's taking his winter nap, by destroying all parts of infested stalks before the moth emerges in the spring. This means that all cornstalks, fodder, or large weeds that might harbor the borer should be burned, shredded, made into silage, fed to livestock, or completely buried by clean plowing before the first of April.

Feeding corn fodder direct to livestock is a good way of disposing of the borers if: (1) All uneaten refuse on the feeding grounds is collected and burned, and (2) the stubble is cut right down to the ground, burned, or plowed completely under before the borer comes out in the spring. Plenty of borers can hide in 6-inch stubble.

Where fodder isn't fed directly, or put into the silo right away, it should be shredded, chopped, or ground into pieces not over one-half inch long. But care should be taken that no refuse is left around the machine to provide the borer with shelter.

Clean and deep plowing is another line of attack. And "clean" means that stalks or stubble must be plowed completely underground, with no trash left on the surface, and so deeply that later working of the land won't drag any remnants to the surface. Plowing cornstalks isn't an easy job and special attachments, such as trash shields, wire, or chains, may be needed to get complete coverage.

Burying doesn't kill the borers, but when they crawl to the surface on clean-plowed land, they can't find shelter and die of exposure. Time of plowing isn't the important thing; it may be done in the spring, but must be completed before the borer moves out of winter quarters.

The most important factor in the campaign against the borer is cooperative, large-scale action all over the threatened territory. The Department of Agriculture warns that no one practice can be expected to do the whole job, that farmers must adopt as many control measures as are practical for their farm. Furthermore, a few farmers in a community can't control the borer on their farms if others make life easy for this air-borne pest.

CARE OF WOOLENS

Dry cleaning isn't always the answer to the problem of keeping winter woolens in top-notch condition. A little home care between trips to the cleaners will insure longer life and a better appearance.

The next time your favorite wool dress has a dull, dingy look turn it wrong side out on the ironing board and give it a good brushing. Use a stiff brush covered with a soft cotton sock or cloth that has been slightly dampened. Brush the whole surface thoroughly and it will take away the lint that has accumulated.

Frequent pressing isn't harmful if you do it the right way. Always press on the wrong side and cover the garment with a heavy pressing cloth slightly dampened. Cotton duck makes a good pressing cloth, but be sure to boil it first to remove the starch.

Press With Hot Iron

Press with a hot iron but not until the pressing cloth is dry. Stop while steam is still coming from it and you won't encourage a shine on your material. A well pressed wool garment has a slightly damp feeling when you finish working with it. Hang it on a well padded hanger in a good circulation of air so it will dry thoroughly.

Never dry woolens near or on a radiator. They are best dried at room temperature. Heat will stiffen the fibers and once they are meshed together you cannot release them.

If you home launder small woolens try washing them in a pillow case. This is a good precaution against stretching out of shape. It prevents threads from being dragged down by absorbing too much water.

If you are thinking of dyeing a woolen be careful. Most permanent dyes require boiling and this may shrink your fabric beyond the point where you can use it.

Vegetable Planting Table.

VEGETABLES	AMOUNTS REQUIRED FOR 100 FEET OF ROW		DISTANCE APART ROWS		Distance Between Plants in Row	TIME TO SOW OR PLANT IN OPEN
	Seed	Plants	Cultivation (Horse) Feet	Cultivation (Hand) Feet	Inches	
Artichoke, Globe	½ oz	50	3 to 4	3	24 to 36	Spring
Artichoke, Jerusalem	——	4 lbs tubers	3	2 to 3	18	Spring
Asparagus, Seed	1 oz	——	2½ to 3	1 to 2	——	Spring
Asparagus, Plants	——	60 to 75	3 to 5	2	18	Spring
Bean, Bush	1 lb	——	2½ to 3	1½ to 2	4	April to August
Bean, Pole	½ lb	——	3	3	——	May & June
Bean, Lima	1 lb	——	3	1½ to 2	6	May & June
Beet	2 oz	——	2 to 3	1 to 1½	2 to 5	March to August
Brussels Sprouts*	1 pkt	75	2½ to 3	2	18	April to July
Cabbage*	1 pkt	65 to 90	2½ to 3	2	12 to 18	April to July
Carrot	1 oz	——	2½ to 3	1½	3 to 5	March to July
Cauliflower*	1 pkt	75	2½ to 3	2	18	April to July
Celery*	1 pkt	200 to 250	3 to 4	1½ to 4	4 to 6	May to August
Chicory	½ oz	——	2½ to 3	1½	3 to 4	May & June
Corn Salad	2 oz	——	2½	1	3	August & Sept.
Corn, Sweet	⅓ lb	——	3	2½ to 3	6 to 9	May to July
Cucumber	½ oz	——	4 to 6	4 to 6	48	May to July
Eggplant*	1 pkt	50 to 75	3	2 to 2½	18 to 24	May & June
Endive	1 oz	100	2½ to 3	1½	9 to 12	April to July
Kale*	1 pkt	75	2½ to 3	1½ to 2	18	April to July
Kohl-Rabi	½ oz	——	2½	1½	6	April to July
Leek	½ oz	——	2½	1¼ to 1½	6	March to May
Lettuce	½ oz	150	2½	1 to 1½	9 to 12	March to Sept.
Melon, Musk	½ oz	——	6 to 8	6	——	May & June
Melon, Water	1 oz	——	8	8	——	May & June
Mustard	1 oz	——	2½	1 to 1½	4 to 6	March to Sept.
Okra	2 oz	75 to 100	3 to 4	2 to 3	24	May & June
Onion, Seed	1 oz	——	2½	1 to 2	3 to 5	March to May
Onion, Sets	1 qt	——	2½	1	2 to 4	February to April
Parsley	½ oz	——	2 to 3	1 to 1½	6	Spring
Parsnip	½ oz	——	2½ to 3	1½ to 2	3 to 6	March to May
Peas	1 to 2 lbs	——	3 to 4	2½ to 4	——	March to May
Pepper*	1 pkt	75	3	1½ to 2	——	May & June
Potato, White	5 lbs	——	3	2 to 3	15 to 18	March to June
Potato, Sweet	3 lbs	75	3 to 5	3 to 5	18	May & June
Pumpkin	½ oz	——	8 to 12	8	——	May & June
Radish	1 oz	——	2	1	1	March to Sept.
Rhubarb	½ oz	33	3	3	36	Spring
Rutabaga	½ oz	——	2½ to 3	1½ to 2	6 to 8	June & July
Salsify	1 oz	——	2½ to 3	1½	3	Spring
Spinach	1 oz	——	2½	1	3	Aug. to Nov.
Spinach, New Zealand	1 oz	——	3	2	12	April & May
Squash, Bush	½ oz	——	3 to 4	3 to 4	——	May & Junc
Squash, Winter	½ oz	——	6 to 10	6	——	May & June
Swiss Chard	½ oz	——	3	1½ to 2	12	March to June
Tomato*	1 pkt	33 to 50	4	3	24 to 36	May & June
Turnip	½ oz	——	2 to 3	1½ to 2	6	July & August
Vegetable Marrow	½ oz	——	8	6	——	May & June

(*) To be started in hotbed. The celery for early crop only.

THE GARDEN SIGNS.

The days of each month in which the moon sign coincides with the sun sign, the influence of the sign is supposed to be greatly intensified. The first day the moon in a sign is better than the second, and the second better than the third. Those who know the importance of these laws are ready to plant at the proper time, knowing that seeds planted in a barren sign, a scanty crop will follow; if planted in a fruitful sign, a full crop will follow. The time to plant the garden is when the earth is in a good sign, and the day to plant is when the moon is in the sign. The time to harvest is when the sign is right.

Aries — Ram, Head—A movable fire sign governed by the sun; seeds if planted in this sign produce vines or stalks.

All crops that produce their yield above the surface of the ground should be planted in the new or increase light of the moon to grow vigorously. For best yield grain should be planted in the dark of the moon.

Taurus — Bull, Neck — Fixed earthly sign governed by Mercury; will do good for all root crops of quick growth.

All root crops that produce their yield in the ground should be planted in the old or decrease light of the moon to produce a good yield.

Gemini—Heavenly Twins—Arms — Barren sign; good sign to plant melon seeds. A good sign to stir the soil to subdue all noxious weeds. Plants that produce their yield above the ground may be planted in any sign of the upper part of the body.

Cancer — Crab Fish, Breast — A watery, fruitful, movable sign; germinate quickly. It is favorable to growth and insures an abundant yield. If it comes at full of the moon it is a good time to plant beans; if at time of new moon, lentils. Best time to sow peas if the day follows the new moon, as they will grow quickly, have abundant flowers and yield; peas, if sown immediately after the second quarter, will bear but little; if sown a day or two after the full moon will bloom and fruit in abundance, but no yield; if sown a day or two after the full moon is out they will little more than break through the ground.

If this sign comes just before the full of the moon it is a good time to plant or prune fruit trees. Cancer is a good earth sign to prune grape vines.

Leo—Lion, Heart—A barren fiery sign; is only favorable to the destruction of noxious growth. Weeds, briars and bushes cut off in the old of the moon in August when its place is in Leo (sign of the lion) will be more certainly destroyed than if done at any other time.

The timber cut in the old of the moon in August will not be eaten by worms nor snap in burning, and will last much longer than if cut at any other time.

Virgo—Virgin, Bowels—A barren sign; the bloom of flower girl, makes many and beautiful flowers, but unfavorable to the growth of seed or transplanting.

Libra — Balance-Scales, Reins — A strong movable sign. Seeds planted at this time produce vigorous pulp growth and roots and a reasonable amount of grain.

Scorpion — Secret, Loins — A fruitful sign producing watery effects. A good sign to plant corn.

Sagittarius — Archer, Bowman, the Thighs —Fiery masculine sign. Will not do well as it is not a very favorable time to plant or transplant. If the moon is dark or on the wane, radishes or potatoes may be planted, as root crops are said to do well if planted in signs of lower part of the body.

Capricorn — Goat, Knees — A moist, movable sign, produces rapid growth of pulp stalk or roots, but not much grain.

Aquarius—Waterman, Legs—Airy masculine sign. Seed does not grow well. Do not plant seed as it will rot, and is only thrown away.

Pisces — Fish, Feet — A watery feminine sign; will produce excellent results and is one of the best signs for producing the fruit of the earth. Being a watery sign assists vegetation to withstand a drouth. This is an especially good sign if the moon is dark or on the wane. This is a good sign to make sourkraut.

Fish bite best during the signs of the Fish, Crab, or Scorpion. Fish at night in light of moon, but not in daytime. Fish in daytime in dark of moon, as fish cannot see in dark of moon and are hungrier in daytime.

The hair should be cut on the increase of the moon if you want a thick head of hair; on the decrease if the reverse.

The same applies to sheep; if you shear sheep in the increase of the moon their wool will grow again better and stronger.

Agricultural Almanac.

WEATHER FORECASTS FOR 1945

Probable State of the Weather.

JAN.

1–3 General storm conditions may be expected, with heavy snows in the north and rains in the south. High water in the lower Mississippi valley.

4–7 Clearing skies and lower temperatures by mid-week over the northern plains and further east by Saturday. Frosts in the northern states.

8–11 Strong winds and unpleasant. Blizzards in the northern Rockies and frosts along the Gulf of Mexico. Fair in New England but cold.

12–15 Threatening conditions will develop the last of the week, as a storm area moves southward over the Missouri River valley. Fierce gales along the Atlantic coast by the 15th.

16–19 Clear skies at some points and blustery squalls at others. Much colder quite generally. Frequent rains along the southern Pacific coast.

20–23 Deep snows will block highways from the upper Mississippi valley eastward to the Atlantic, while further south heavy rains will cause many streams to overflow.

24–27 Clear and pleasant, but colder. Threatening conditions will develop the last of the week in the northwest, bringing dangerous gales to the coast of Oregon and Washington.

28–31 Blizzards will occur in many sections, as the storm area spreads eastward over the country. Fierce gales along the Atlantic coast will threaten shipping. Heavy rains in the southeast.

Precipitation below normal for the month, temperatures above the average.

Probable State of the Weather.

FEB.

1–3 Clearing and colder quite generally. Overcast and warmer on the 3rd on the western plains. Frosts in California and along the Gulf of Mexico.

4–7 Local storms will bring scattered snowfalls in the Ohio River valley and northward along the Great Lakes. Heavy fogs will delay shipping on the lower Atlantic coast.

8–11 Fair at first, but very windy. Fierce squalls in the lower Mississippi valley on Saturday and Sunday. Heavy snows on the western plains.

12–15 Violent gales along the Pacific coast will do much damage. Sudden, swift storms in the southeastern states on the 15th.

16–19 Continued stormy weather up to the 19th, when skies will clear in the Missouri River and upper Mississippi valleys. Scattered showers in the southwest.

20–23 Clear skies and much colder up to the 22nd, when temperatures will rise and threatening conditions will develop over the northern plains. Snow storms in the Appalachian mountains.

24–28 Violent storms will do severe damage at many points. Howling blizzards in the upper Mississippi valley and eastward to New England will block highways, while further south heavy rains will cause swollen streams to overflow their banks.

Temperatures above the average for the month, precipitation normal.

Slippery Rugs may cause bad accidents. A non-skid underlay will stop slipping, or you can brush a friction-resisting liquid onto the bottom of the rug. These preparations are sold under such names as "rug anti-slip."

Probable State of the Weather.

MARCH

1–3 Pleasant at most points, but cold. Heavy frosts will threaten early crops in California, along the Gulf coast and in Florida. Local storms on the 3rd.

4–7 Clear skies and warmer quite generally. Occasional showers in the eastern states. Very dry in the southwest.

8–11 Severe gales along both the east and west coasts will endanger shipping. Violent squalls in the lower Mississippi valley and Gulf states. Snow storms in the Rockies.

12–15 Fair weather may be expected at most points. Scattered showers in Oregon and Washington. Heavy morning fogs on the Great Lakes.

16–19 Unsettled in the St. Lawrence River valley and the New England states. Snow flurries on the northern plains.

20–23 Severe storms and heavy rains will bring flood conditions to many sections. Blustery squalls in the mid-Atlantic states.

24–27 Clearing skies the first of the week in the Missouri River valley. Fair and cold in the eastern states by the 27th.

28–31 Local rains in the upper Mississippi valley and in the southeastern states. Wind squalls and blustery along the Atlantic coast.

Precipitation above normal for the month, temperature average.

Probable State of the Weather.

APRIL

1–3 Violent squalls and rains in the Ohio River valley. Showers in the Appalachian mountains. Fogs from Long Island Sound to Cape Hatteras.

4–7 Fair at first, becoming overcast and stormy. Heavy rains on the 7th in the southeastern states. Wind squalls on the western plains.

8–11 Delightful spring weather in most sections, but windy. Warmer by mid-week. Hot and dry in the southwest.

12–15 Local storms and rains in the upper Mississippi valley. Showers along the north Pacific coast. Clearing and cooler by Sunday.

16–19 Severe gales appearing in the northwest on the 17th will move eastward to the Great Lakes by Thursday, bringing heavy rains and violent winds. Thunder storms in the lower Mississippi valley.

20–23 Pleasant in the western states as the storm area moves eastward, reaching the Atlantic coast by the 21st. Fair quite generally on the 22nd and 23rd.

24–27 Overcast at many points as scattered spring showers bring needed rain. Occasional thunder storms in the Gulf states.

28–30 Clear skies and cooler temperatures may be expected at this time, making this a most pleasant period. Scattered showers in New England on the 28th.

Temperatures below normal for the month, precipitation average.

Sticking Drawers and sticking cabinet doors are caused by swelling of the wood due to excess humidity. Do not try to force them open or you will surely spoil the furniture. Wait until dry weather permits opening, then rub surfaces that have stuck with hard soap, paraffin or stick lubricant. If trouble occurs again, the edges that stick must be sandpapered or planed down.

Agricultural Almanac.

Probable State of the Weather.

MAY

1–3 Occasional showers in the Missouri River valley. Blustery squalls along the Atlantic coast. Thunder storms on the southern plains.

4–7 Fair and pleasant, but chilly winds in the northern states will make a fire quite welcome. Fine weather for the planting of early crops.

8–11 Blustery squalls over the northern plains and tornadoes in the lower Mississippi valley. Thunder storms in the southeastern states.

12–15 Fair up to the 14th, when sudden, swift storms will strike in many places. Gales along the coast of Washington and Oregon.

16–19 Severe storms will reach the Ohio River valley and eastern states, where they will do much damage. Clearing on the 19th in the Mississippi valley.

20–23 Clear and cooler in the states bordering the Great Lakes. Hot in the Gulf states with occasional thunder showers.

24–27 Higher temperatures and occasional showers will make this a seasonable period. Heavy morning fogs along the New England coast.

28–31 Clouding skies on the 28th will presage local showers by mid-week. Rain squalls in the northern Rockies. Thunder storms in the southeastern states.

Temperatures normal for the month, precipitation below the average.

Probable State of the Weather.

JUNE

1–3 Clear skies and much warmer weather may be expected. Hot and dry in the southwest. Thunder storms in the lower Mississippi valley.

4–7 Wind storms in the Great Lakes area, where shipping will suffer. Gales along the lower Atlantic coast. Thunder storms on the southern plains.

8–11 Fair up to the first of the week, when violent squalls will bring scattered rains to the Ohio River valley. Thunder storms in the southeastern states.

12–15 Heavy rains at many points in the north. Tornado weather in the south. Clearing on the 15th in west and central areas.

16–19 Overcast on the 16th, followed by local storms and rains at many points. Thunder showers on the northern plains. Very dry in California.

20–23 Clearing skies in New England on the 21st, with cool northerly winds. Heavy morning fogs along the coast. Hot and dry in the Gulf states.

24–27 Fair at some points, but elsewhere violent thunder storms will bring heavy rains. Floods will threaten in the Missouri River valley.

28–30 Scattered storms of fierce violence and short duration will damage early crops in the eastern states. Hail will fall at many places.

Precipitation and temperatures for the month above the average.

To Clean Wood, moisten a soft cloth in lukewarm water, put on melted soap or soap chips (mild types only) and fold over cloth to make a pad with soap on the inside. Rub over wood, and lather will remove dirt and fingerprints. Wipe clean with another damp cloth. Dry and polish in direction of grain as below.

Probable State of the Weather.

JULY

1–3 Fair and hot up to the 3rd, when violent thunder storms will bring some relief. Cool northerly winds along the Canadian border. Beginning of the rainy season in Florida and Georgia.

4–7 Clear skies quite generally, but strong winds will reduce the heat. Severe gales along the Pacific coast will bring little rain to that section.

8–11 Violent squalls will strike many points in the Ohio River valley and Great Lakes area. Terrifying thunder storms in the Allegheny Mountains.

12–15 Pleasant and much warmer in the upper Mississippi and Missouri River valleys, with occasional thunder storms. Dry and sultry on the southern plains.

16–19 Scattered thunder storms will bring medium to heavy rains to many points in New England and central Atlantic states. Sudden squalls in the northern Rocky Mountain area.

20–23 A very hot, sultry period, broken in some sections by violent thunder storms the first of the week. Tornadoes will hit scattered areas in the southern states.

24–27 Fair and cooler on the western plains. Hot in the southeastern states, where thunder storms will bring daily rains. Heavy fogs along the north Atlantic coast.

28–31 Wind squalls will damage fruit trees in the north Pacific coastal area, but will bring little rain. Continued hot and dry in the southwestern states.

Precipitation and temperatures normal for the month.

Probable State of the Weather.

AUGUST

1–3 Blustery west and northwest winds will slowly veer to the east and southeast, presaging unsettled conditions. This will be a delightful vacation period.

4–7 Violent gales on both the Atlantic and Pacific coasts may be expected. Fierce squalls in the upper Mississippi valley and a hurricane threat to Florida.

8–11 Fair and hot at first, followed by severe thunder storms in the Ohio River valley and eastern areas on the 10th and 11th. Cooler in New England, where heavy fogs will delay shipping.

12–15 Overcast and hot in the southeast, where thunder storms will bring heavy rains. Clearing on the 15th.

16–19 Hot and dry on the southern plains, where drought conditions will cause dust storms. Scattered thunder storms in the Missouri River valley.

20–23 Local storms on Monday and Tuesday will be followed by fine summer weather. Violent squalls in the Appalachian Mountains.

24–27 Generally fair and dry. Late evening thunder storms will bring light rains to many points. Very dry in California.

28–31 Excessive heat will cause much suffering in large cities. Crops will need rain badly. Violent thunder storms will bring some relief from the heat, but little moisture.

Precipitation for the month below the average, temperatures above normal.

Shaky Drawers should be made sturdy before they come apart beyond repair. Triangular wood blocks glued and nailed into corners are a good reinforcement; also metal angle brackets.

Agricultural Almanac.

Probable State of the Weather.

SEPT.

1–3 A severe tropical storm may be expected at this time in the Gulf and lower Atlantic states. Violent gales will lash the Pacific coast.

4–7 Hot and dry on the central and northern plains. Clear skies and cool northerly winds in New England.

8–11 Continued dry weather, broken by scattered thunder storms in the lower Mississippi valley. Heavy rains on the 9th in the western plateau area.

12–15 Fair up to the 14th, when storms may be expected in the eastern states. Heavy fogs along the coasts of Oregon and Washington. Showers in the Ozark Mountains.

16–19 Stormy weather will moderate by the 18th, to be followed by a delightful Harvest Moon period. Cooler in the upper Mississippi valley.

20–23 Equinoctial disturbances, beginning on the 21st, will bring heavy rains to many sections, marking a definite end to widespread drought. Cold winds on the 23rd in the northwest.

24–27 Violent squalls in the Ohio River valley and northeastern states will give way to fine autumn weather on the 25th and 26th. Continued dry in the southwest.

28–30 A dangerous storm area will sweep eastward across the country. Heavy rains in the Great Lakes region. A tropical disturbance will strike the Gulf states.

Precipitation for the month above normal, temperatures average.

Probable State of the Weather.

OCT.

1–3 Delightful fall weather for the harvesting of late crops. Frosts on the 1st and 2nd in northern states; warmer on the 3rd.

4–7 Cold, blustery squalls in the Missouri River and upper Mississippi valleys. Severe wind storms in the southeast states.

8–11 Heavy rains and somewhat warmer in many sections up to the 10th, when skies will clear. Fair on the 11th with lower temperatures.

12–15 Severe gales along the Pacific coast will damage small craft and considerable shore property. The accompanying rainfall will be very welcome. Strong northwest winds over the Great Lakes on the 15th.

16–19 Clearing and much colder. Snow flurries on the northern plains and heavy frosts in the Ohio River valley.

20–23 Cold northeast storms in New England, with spitting snow and sleet. Local storms in the lower Mississippi valley will bring heavy rains. Fair on the 23rd.

24–27 Violent storms may be expected at this time on land and sea. Heavy rains in the lower Atlantic states.

28–31 Cold northerly winds will bring lower temperatures deep into the south, giving the Gulf states and Florida their first fall weather. Very dry in the southwest.

Precipitation and temperatures below average for the month.

Cleaning Aluminum and Iron. Utensils of these metals may be scoured with steel wool or metal sponge or suitable substitutes. The inside darkening of aluminum in which water has been boiled is not harmful, but may be removed if desired by boiling water, to which vinegar has been added, in the pot.

Probable State of the Weather.

NOV.

1–3 Dangerous gales along the upper Atlantic coast will delay shipping. Wind storms in the northwestern states. Snow flurries in the upper Mississippi valley.

4–7 Fair on the 4th and 5th, followed by sudden, fierce storms in many sections. Rains in Oregon and Washington.

8–11 Stormy up to Sunday, when clearing skies and lower temperatures may be expected. Thick fogs on the lower Atlantic coast.

12–15 A delightful Indian Summer period and colder. Warm days and chilly moonlight nights. Heavy frosts will extend deep into the south.

16–19 Local storms up to the first of the week, when fair weather will cover much of the country. Light snow squalls in the northern Rockies. Showers in California.

20–23 Severe storms, accompanied by strong winds and heavy rains, will move eastward across the Great Lakes and Ohio River valley areas. Heavy weather along the lower Atlantic coast.

24–27 Fair and much colder. Lower temperatures will extend down to the Gulf, where early frosts will threaten late fall truck crops. Snow flurries in the Allegheny Mountains.

28–30 Cold, blustery squalls with occasional snow flurries or driving rains. Warmer in the upper Mississippi valley on the 30th.

Precipitation normal for the month, temperatures above the average.

Probable State of the Weather.

DEC.

1–3 Generally clear skies, but cold northerly winds will make conditions most uncomfortable in New England. Wind squalls on the northern plains.

4–7 Violent gales will sweep the Great Lakes area, accompanied by sleet and snow. Heavy rains in California.

8–11 Fair and cold. Delightful in the southeastern states and Florida. Fogs along the central Atlantic coast.

12–15 Snow flurries in the Missouri River valley. Rough weather in the Oregon and Washington coastal area.

16–19 Fair and much colder. Strong northerly winds will sweep lower temperatures down into the Gulf states. Light to heavy frosts in Florida.

20–23 Sudden, swift storms will strike in many sections, bringing sleet and snow in the north and rains in the south. Clearing on the 23rd.

24–27 Fair and cold on the 24th, followed by local storms in wide scattered areas. A white Christmas may be expected in the Ohio River valley and northeastern states. Warmer on the 26th.

28–31 Clear and pleasant in most sections, although unsettled conditions may develop at some points. Snow flurries in the upper Mississippi valley.

Precipitation and temperatures for the month above the average.

Chips and Nicks should be fixed at once, and before shabbiness makes you want to replace the piece. If a chip, splinter or corner is knocked off, glue firmly back in place. Apply cellophane tape tightly, extending well beyond glued portion, to hold repaired piece until glue sets. Leave the tape on overnight.

Agricultural Almanac

CAN YOU USE CHEAPER FUEL?

If you have an oil burner, it is not wise to experiment with cheaper grades of oil. Follow the recommendation of the burner manufacturer or dealer on the grade of oil that will give most efficient service in your burner. Don't be fooled by oil dealers who tempt you with bargain prices on the wrong oil for your burner.

If you have a coal-fired furnace, you may get an economy with a cheaper grade, a smaller or mixed size of coal, or the use of coke instead. Reliable coal dealers are glad to advise the best size and grade for the special conditions of your home, and to tell you how to fire for best results. You may need to try several different coals before you find the one that works best in your furnace.

SAGGING GARAGE DOORS

DOOR SAG whch is caused by loosening of the door joints may be repaired simply by attaching a metal rod reinforcing bar. This consists of two pieces of metal joined by a turnbuckle at center, can be obtained at hardware departments. The device is attached diagonally from upper corner of door at the hinge side, to the lower outside door corner. Tightening the turnbuckle as necessary pulls the door back into its correct proportions, so that it will open and close easily. This work can usually be done without removing the door.

If turnbuckles are not available, garage door must be taken down, laid on level surface, and straightened into proper shape and position. Then a wooden board at least 4 inches wide must be screwed on diagonally as described in paragraph above, to keep from sagging again.

ANATOMY OF MAN'S BODY,
AS SAID TO BE GOVERNED BY THE TWELVE CONSTELLATIONS.

The Head and Face — Aries.

Arms, Gemini.

Heart, Leo.

Reins, Libra.

Thighs, Sagittarius.

Legs, Aquarius.

Neck, Taurus.

Breast, Cancer.

Bowels, Virgo.

Secrets, Scorpio.

Knees, Capricorn.

The Feet — Pisces.

SHORT ALMANAC FOR THE YEAR 1945.

Being the first after Leap Year, and the 169th of American Independence.

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
JAN.		1	2	3	4	5	6
	7	8	9	10	11	12	13
	14	15	16	17	18	19	20
	21	22	23	24	25	26	27
	28	29	30	31			
FEB.					1	2	3
	4	5	6	7	8	9	10
	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28			
MAR.					1	2	3
	4	5	6	7	8	9	10
	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	31
APR.	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30					

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
MAY			1	2	3	4	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
	27	28	29	30	31		
JUNE						1	2
	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
JULY	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	31				
AUG.				1	2	3	4
	5	6	7	8	9	10	11
	12	13	14	15	16	17	18
	19	20	21	22	23	24	25
	26	27	28	29	30	31	

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
SEPT.							1
	2	3	4	5	6	7	8
	9	10	11	12	13	14	15
	16	17	18	19	20	21	22
	23	24	25	26	27	28	29
	30						
OCT.		1	2	3	4	5	6
	7	8	9	10	11	12	13
	14	15	16	17	18	19	20
	21	22	23	24	25	26	27
	28	29	30	31			
NOV.					1	2	3
	4	5	6	7	8	9	10
	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	
DEC.							1
	2	3	4	5	6	7	8
	9	10	11	12	13	14	15
	16	17	18	19	20	21	22
	23	24	25	26	27	28	29
	30	31					

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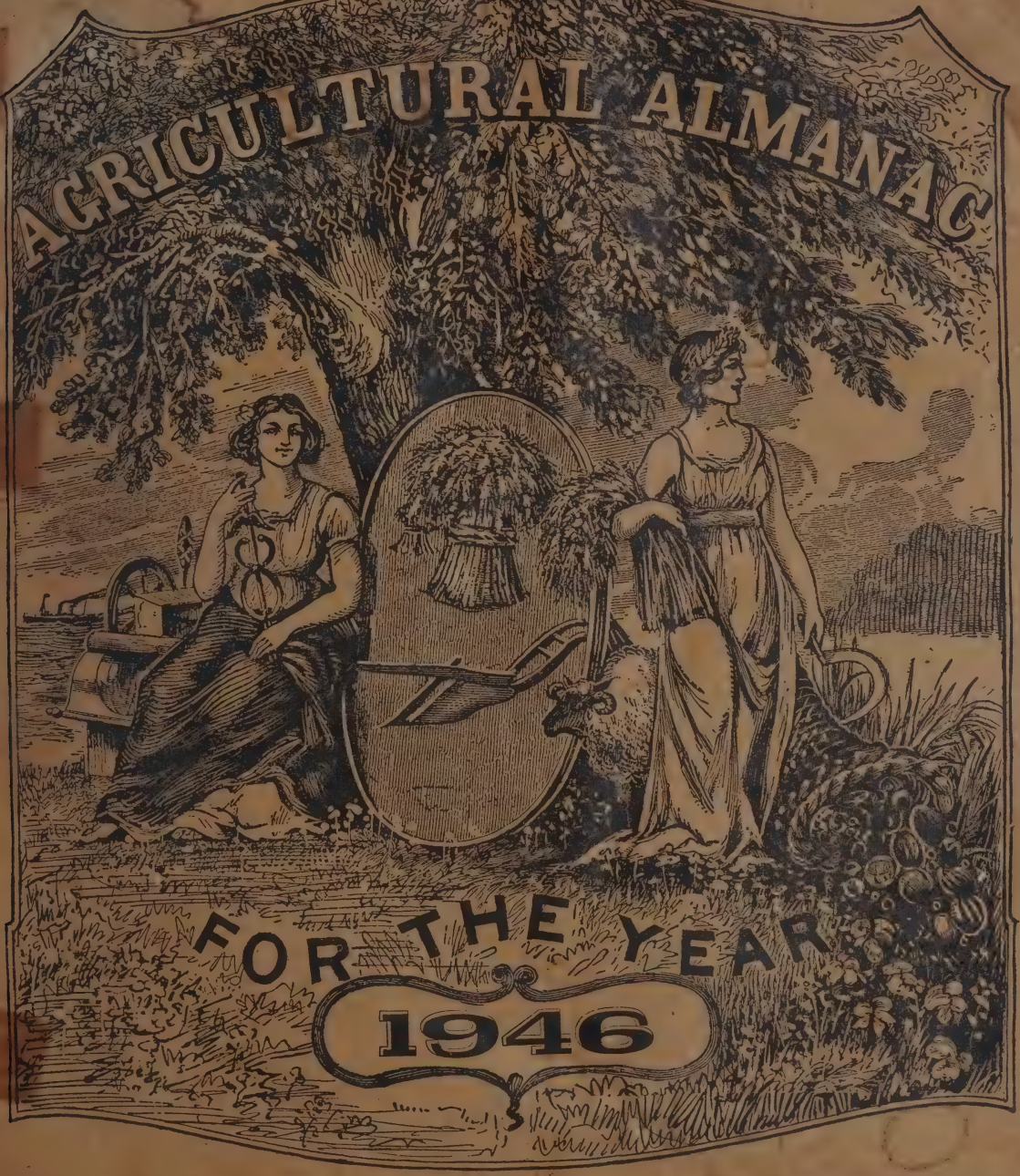

JOHN BAER'S SONS, INC., *Lancaster, Pa.*

Eclipses for the Year 1946.

ECLIPSES FOR THE YEAR 1946

In the year 1946 there will be six eclipses, four of the Sun and two of the Moon. The circumstances of the eclipses are as follows:

1. A partial eclipse of the Sun, January 3, invisible in the United States; visible in the Antarctic regions and southern South America.

2. A partial eclipse of the Sun, May 30, invisible in the United States; visible in southwestern South America.

3. A total eclipse of the Moon, June 14. The beginning of the eclipse will be visible in the Antarctic regions, New Zealand, Australia and Asia. The ending will be visible in the Antarctic regions, Australia, Asia, Europe, Africa and the extreme eastern part of South America. No part of the eclipse will be visible in the United States.

4. A partial eclipse of the Sun, June 28, invisible in the United States; visible in the Arctic regions and the extreme northern part of Europe and Asia.

5. A partial eclipse of the Sun, November 23, visible in the United States, except in the western part, Canada, Greenland, Yucatan, and the extreme northern part of South America. The maximum magnitude of the eclipse, visible in southern Greenland, will be .776.

The most favorable location for viewing this eclipse in the United States will be in New England, where .35 of the Sun's face will be hid at noontime. Elsewhere in the United States the eclipse will occur a short time earlier, beginning about mid-morning, and will be somewhat smaller in size, tapering off to zero in the southwestern states.

6. A total eclipse of the Moon, December 8. The beginning will be visible in the northwestern part of North America, New Zealand, Australia, Asia, Europe and Africa. The ending will be visible in the extreme northwestern part of North America, Australia, Asia, Europe and Africa.

Mars is the "Reigning Planet" this Year
Cardinal Points . . . Eastern Standard Time . . .
Vernal Equinox, entrance of the Sun into Aries,

(Continued on Page 35)

Centennial Almanac for the Year 1946

The following is an extract from the "Centennial Almanac" for the year 1946.

MARS is the reigning planet this year.

Mars is a bright fiery Star, brilliant and terrible. He completes his revolution every two years, and is by nature hot and dry, choleric, a masculine Planet; is averse to human nature and instigator of war and discord. He has under his influence the affairs of war, alchemy, smiths and all merchanics who work with fire.

Year in General. Under this Planet the year is more dry than humid; for notwithstanding it frequently rains, it is very dry.

Spring. The Spring is generally dry, raw and cold with frost until May; therefore the sheep must not be left go on the grain fields and meadows, for they will do more harm than good.

Summer. Mars above all other Planets causes a hot summer, and the Sun heats to such a degree that a person cannot well pass without shoes over sand and stones. The nights are very warm and uncomfortable. Streams wells and springs will become very small.

Autumn. Is more dry than humid, and those who have good vineyards will get much wine. There will be but little snow before the first Sunday in Advent, and notwithstanding it sometimes freezes in October, the month of November is uniformly warm.

Winter. The winter is cold, dry and variable.

Cultivation of Summer Grain. Barley on well manured fields, timely sown, grows abundantly; but sown on sand and loam at an unseasonable time it will produce but little in the Spring. Everything must be well sown under. The yield of oats will be small but of good quality; however on good fields the yield will be pretty good. Peas and other leguminous plants must be planted on humid and manured ground, if they are to succeed well. Flax seldom succeeds well and hemp remains small with slender stalks; it will however be good. Hay and aftermath there will be but little, therefore sheep should not be kept on the meadows.

Cultivation of Winter Grain. Rye will grow abundantly and perfectly, but wheat only middling.

Autumn Seeding. As the ground will be closed so late by frost and snow, it will not be necessary to hurry much in seeding, but nevertheless the sheep are not to be left on the grains afterwards.

Fruit. Pears succeed better than apples; prunes and cherries there will be but few, also but very few nuts and acorns.

Hops. There will grow but few, and will be in danger from frost in the spring, and from the hail in the summer, but what will come to maturity, will be good.

Grape Culture. This year grapes will be abundant and the wine will be good.

Tempests and Thundergusts. During this year there will be but little wind and rain, but heavy thundergusts which may easily cause conflagrations.

Reptiles and Vermin. Snakes will be numerous and grasshoppers will be unusually abundant but fish will be few.

Diseases. In this year inflammatory fevers and dysentery are apt to prevail, with various strange affections; persons will also be affected with tremors at the head, and fits of melancholy.

AGRICULTURAL

ALMANAC,

FOR THE YEAR OF OUR LORD

1946,

Being the 2nd After Leap Year, and until the 4th of July the 170th of American Independence.

CONTAINING

The rising setting, and eclipses of the Sun and Moon; the phases and places of the Moon; the aspects of the planets, the rising, setting, and southing of the most conspicuous planets and fixed stars, the equation of time, and the time of high water at Philadelphia; with a variety of useful and entertaining matter.

Carefully Calculated for the Meridian of Pennsylvania and the adjoining States by HART WRIGHT COMPANY, Penn Yan, N. Y.
Inquiries about Astronomical Data should be mailed direct to them.

JOHN BAER'S SONS, Inc., LANCASTER, PA.

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CHARACTERS OF THE CONSTELLATIONS.

- ♈ Aries, the Ram.
- ♉ Taurus, the Bull.
- ♊ Gemini, the Twins.
- ♋ Cancer, the Crab
- ♌ Leo, the Lion.
- ♍ Virgo, the Virgin.
- ♎ Libra, the Balance.
- ♏ Scorpio, the Scorpion.
- ♐ Sagittarius, the Bowman.
- ♑ Capricornus, the Goat.
- ♒ Aquarius, the Waterman.
- ♓ Pisces, the Fishes.

ASTRONOMICAL CHARACTERS EXPLAINED.

- New Moon.
- First quarter, or Moon in general.
- Full Moon.
- Last quarter, or Moon in general.
- ☊ Moon's Ascending Node, or Dragon's Head.
- ☋ Moon's Descending Node, or Dragon's Tail.
- ☽ Moon's Ascension.
- ☾ Moon's Descension.
- ☽ Moon in Apogee, furthest from the Earth.
- ☾ Moon in Perigee, nearest to the Earth.

PLANETS AND ASPECTS.

- ☉ Sun.
- ☿ Mercury.
- ♀ Venus.
- ♆ Neptune.
- ⊕ Earth.
- ♂ Mars.
- ♃ Jupiter.
- ♄ Saturn.
- ♅ Herschel, or
- ♅ Uranus.
- ☾ Moon.
- ☌ Conjunction, or planets in the same longitude.
- □ Quartile, when they are 90 degrees apart.
- ☍ Opposition, when they are 180 degrees apart.

NOTE: The Sun and Moon Rises and Sets are given in Civil Time. The Moon's Phases are given in Eastern Standard Time and the Rising, Setting and Southing or Meridian Passage of the Stars, Constellations or Signs, in Civil Time. The Philadelphia High Water is in E. S. T. also, and is the Daylight highwater; for the other highwater subtract or add 12 hours and for the low-waters apply 6 hours either way. For the Standard Time applicable to Lancaster and vicinity add 4 minutes to the Civil Time. For War time add an additional hour. The Moon's place is given for 7 P. M. Eastern Standard Time.

MOVABLE FEASTS AND CHRONOLOGICAL CYCLES

MOVABLE FEASTS

Holy Name of Jesus, January 2.
Septuagesima Sunday, February 17.
Sexagesima Sunday, February 24.
Quinquagesima Sunday, March 3.
Shrove Tuesday, March 5.
Ash Wednesday, March 6.
Quadragesima Sunday, March 10.
Mid Lent Sunday, March 31.
Passion Sunday, April 7.
Palm Sunday, April 14.
Maundy Thursday, April 18.
Good Friday, April 19.
Easter Sunday, April 21.
Low Sunday, April 28.
Mother's Day, May 12.
Rogation Sunday, May 26.
Ascension Day, May 30.
Memorial Day, May 30.
Whit Sunday, June 9.
Children's Day, June 9.
Trinity Sunday, June 16.
Father's Day, June 16.
Corpus Christi, June 20.
Labor Day, Monday, September 2.
Gold Star Mothers' Day, September 29.
Christ, the King, October 27.
Thanksgiving Day, November 28.
Advent Sunday, December 1.
Christmas Day, December 25.
Sundays after Trinity this year, 23.

QUATEMBER OR EMBER DAYS

1st. March 13, 15 and 16.
2nd. June 12, 14 and 15.
3rd. September 18, 20 and 21.
4th. December 18, 20 and 21.

CHRONOLOGICAL CYCLES

Dominical Letter	F
Lunar Cycle or Golden Number	9
Epact	28
Solar Cycle	23
Roman Indiction	14
Julian Period	6659

The chronology of the Jews for the year 5707 begins at sunset September 25, 1946.

The chronology of the Mohammedans for the year 1366 begins at sunset November 24, 1946.

How to Use the Almanac and Understand it.

Many persons do not fully understand how to use an almanac, and for the benefit of such, the following information is given:

Quatember or Ember Days.—An epithet applied to certain fast-days appointed by Pope Calixtus for imploring the blessings of God on the fruits of the earth, and upon the ordinations performed in the church at this time.

Dominical Letter.—This is called also the Sunday letter, and is simply an expedient by means of which we can more readily ascertain the day of the week on which any day of the year falls, provided we know on what day of the week New Year Day falls. To the first seven days of January are affixed the first seven letters of the alphabet—A, B, C, D, E, F, G—and of these that which denotes Sunday is called the Dominical Letter. Thus, if Sunday is New Year Day, then A is the Dominical Letter; if Monday, the letter is G, etc.

Lunar Cycle or Golden Number.—This is a period of nineteen years, after which time the New and Full Moon fall approximately on the same day of the month as they did at the beginning of the period. Any number of this period is called the Golden Number. To find the Golden Number add 1 to the given year and divide by 19, and the remainder is the number; if there be no remainder, however, the number is 19. Thus for 1931, add 1=1932; divided by 19=101, with a remainder of 13, which is the Golden Number.

Epact.—The Epact is the Moon's age at the beginning of the year, or the number of days which have elapsed since the last new moon. Its use is in finding the Paschal Full Moon.

Solar Cycle.—A period of 28 years, after which the days of the month return to the same days of the week. Its chief use is to find the Dominical Letter, of which mention has been made.

Roman Indiction.—The Roman Indiction is a cycle of 15 years and is reckoned from the year 313 as its origin. Hence, if any given year less 312 be divided by 15 the remainder will be the current year of the period.

Julian Period.—Reckoned from the year 4713 B. C., and may be found by adding 4713 to any given year. Its chief use is found in chronological data.

The following is explanatory of the calendar pages of the almanac:

H. w. h.—The figures in this column signify the hours at which the tide reaches its highest point at the city of Philadelphia.

Moon South.—The figures in this column denote the time that the Moon crosses the meridian.

Moon Place.—This column indicates the passage of the Moon through the Zodiac and the constellations it enters on the respective dates. The figures in this column give age of the Moon each day at 7 P. M.

Moon R. & S.—The figures in this column indicate the hour and minute at which the Moon rises or sets, as is indicated by these words.

Miscellaneous Particulars.—This column contains much and varied information. It gives the rising and setting of the principal planets and some of the fixed stars. The fixed stars, which can always be seen on clear nights, are all suns shining by their own light and are at tremendous distances from the earth. They apparently rise and set about the same time from year to year, moving from east to west with the entire vault of the heavens; but since the earth in her yearly path around the sun moves from west to east, these stars rise and set about four minutes earlier each day.

This column indicates the planetary conjunctions, and, as the Moon passes through the twelve signs of the Zodiac each month, conjunctions of this body with the planets are also given. The Moon moves rapidly when nearest the earth (indicated by "Moon in Perigee") and slowly when farthest from the earth (indicated by "Moon in Apogee"). This column also shows when the Sun enters the various signs.

The character which represents the Moon's ascending node denotes that on the date indicated the Moon in ascending crosses the path of the Sun. The symbol which represents the Moon's descending node denotes that on the date indicated the Moon crosses the Sun's path in descending.

The character which represents the Moon's ascension denotes the date of the Moon's greatest declination south (i. e., farthest south), and the character representing the Moon's descension indicates the Moon's greatest declination north.

A planet is said to be in conjunction with another body when it has the same celestial longitude. In inferior planets (Mercury and Venus) this conjunction is of two kinds. When the planet is between the earth and the Sun it is called inferior conjunction and when at the opposite point of its orbit superior

Meteors or shooting stars are small heavenly bodies of metalic or stone composition that pass through the atmosphere of the earth by the millions every 24 hours. They are always most numerous in the hours after midnight and at times appear in showers Most of them are little larger than a grain of sand.

Abbreviations.—E., evening; m., morning; Per., perigee; Apo., apogee; M., Meteors; S. or So., south or on Meridian; R., rises;; S., sets.

JANUARY, 1st Month.

Weeks and Days.	Remarkable Days.	H. w. h.	The Moon: South morn. h. m.	Place & Age	rises morn h. m.	Miscellaneous Particulars	The Sun: slo. m.	rises. h. m.	sets. h. m.
Tuesday	1 *New Year*	12	10 32	♑ 28	5 38	♂☿☾, ♀ rises 6 56 m	3	7 22	4 45
Wednesd	2 *Holy Name*	1	11 23	♒ 29	6 37	⊕near't ☉, ♂♀☾ ♉	4	7 22	4 46
Thursday	3 Enoch	2	ev. 15	♒ 0	Sets eve.	3. Moon low't ☋	4	7 22	4 47
Friday	4 Methuselah	2	1 8	♓ 1	5 53	Orion rises 4-6 m	5	7 22	4 48
Saturday	5 Simon	3	2 1	♓ 2	6 56	♓ sets 11 e-1 m	5	7 22	4 48
1]	*2nd Sunday after Christmas*					Day's length 9 hours 27 min.			
Sunday	6 *Epiphany*	4	2 53	♓ 3	8 1	Ram sets 1-3 m	6	7 22	4 49
Monday	7 Isidor	5	3 43	♈ 4	9 8	♒So. 9-11 e	6	7 22	4 50
Tuesday	8 Erhard	5	4 31	♈ 5	10 16	Cancer So. 1-3 m	6	7 22	4 51
Wednesd	9 Julian	6	5 19	♉ 6	11 24	Job's Cof. sets 9e	7	7 22	4 52
Thursday	10 *Paul, Herm.*	7	6 8	♉ 7	morn	10. Mars near. ⊕	7	7 22	4 53
Friday	11 Hyginus	8	6 58	♉ 8	12 34	Mars rises 4 56 e	8	7 22	4 54
Saturday	12 Rinehold	9	7 51	♉ 9	1 44	♂♄☉, ♒ rises 9-11 e	8	7 22	4 55
2]	*1st Sunday after Epiphany.*					Day's length 9 hours 35 min.			
Sunday	13 Hilary	10	8 47	♊ 10	2 57	♂♂☉, ♒ sets 6-7 e	8	7 21	4 56
Monday	14 Felix	11	9 46	♊ 11	4 10	♂☿☾, ☾ in Perigee ☾	9	7 21	4 57
Tuesday	15 Maurice	12	10 47	♋ 12	5 23	Hyades So. 9 e ♉	9	7 21	4 59
Wednesd	16 Marcellus	1	11 49	♋ 13	6 30	□♃☉, ♂♄☾ ◠	10	7 20	5 00
Thursday	17 Franklin born	2	morn	♌ 14	rises eve.	17. ♂♂☾, Meteors	10	7 20	5 01
Friday	18 Prisca	2	12 48	♌ 15	6 13	Hare sets 9–10 e	10	7 19	5 02
Saturday	19 *Lee Born*	3	1 47	♌ 16	7 21	Kids So. 9 30 e	11	7 19	5 03
3]	*2nd Sunday after Epiphany.*					Day's length 9 hours 46 min.			
Sunday	20 Sebastian	4	2 34	♍ 17	8 28	☉ enters ♒	11	7 18	5 04
Monday	21 Agnes	5	3 21	♍ 18	9 31	♃ rises 12 11 m	11	7 18	5 05
Tuesday	22 Vincent	5	4 5	♎ 19	10 32	♂♂♄, ♂♆☾	11	7 17	5 06
Wednesd	23 Emerentia	6	4 47	♎ 20	11 31	Auriga So. 9-10e	12	7 17	5 08
Thursday	24 *St. Catherine*	7	5 29	♏ 21	morn.	24. ♂♃☾	12	7 16	5 09
Friday	25 *Paul's Conv.*	8	6 10	♏ 22	12 30	Whale So. 5–7 e	12	7 15	5 10
Saturday	26 Polycarpus	9	6 53	♏ 23	1 29	Moon Apogee ☽	12	7 14	5 11
4]	*3rd Sunday after Epiphany.*					Day's length 9 hours 58 min.			
Sunday	27 Chrysostom	9	7 37	♐ 24	2 27	Pollux So. 11 15 e	13	7 14	5 12
Monday	28 Charles	10	8 24	♐ 25	3 27	Sirius So. 10 13 e	13	7 13	5 14
Tuesday	29 *McKinley born*	11	9 14	♑ 26	4 25	Procyon So 11 02e ♋	13	7 12	5 15
Wednesd	30 Adelgunda	12	10 6	♑ 27	5 22	Castor So. 10 52 ☋	13	7 11	5 16
Thursday	31 Virgil	1	10 59	♑ 28	6 15	♄ sets 6 01 m	13	7 10	5 17

January has 31 Days.

MOON'S PHASES, &c.

New Moon the 3rd, at 7 o'clock 30 minutes in the morning; colder.

First Quarter the 10th, at 3 o'clock 27 minutes in the afternoon; stormy.

Full Moon the 17th, at 9 o'clock 46 minutes in the morning; fair.

Last Quarter the 24th, at 12 o'clock midnight; unsettled.

THE PLANETS IN 1946

Morning Stars

MERCURY—A few days before and after April 23, August 20 and December 9.

VENUS—January 1 to February 1 and November 17 to December 31.

MARS—January 1 to 13.

JUPITER—January 1 to April 12 and October 31 to December 31.

SATURN—January 1 to 12 and July 21 to December 31.

Evening Stars

MERCURY—A few days before and after March 9, July 5 and October 31.

VENUS—February 1 to November 17.

MARS—January 13 to December 31.

JUPITER—April 12 to October 31.

SATURN—January 12 to July 21.

Brightest or Best Seen

MERCURY—As an Evening Star March 2 to 16, setting about an hour after the Sun near the sunset point of the horizon: also, as a Morning Star August 13 to 27, rising about an hour before the Sun near the sunrise point of the horizon.

VENUS—October 13 as an Evening Star and December 23 as a Morning Star.

MARS—In January when shining all night.

JUPITER—On April when opposite the Sun and shining all night.

SATURN—In January when shining as an all-night star.

Dim or Invisible

MERCURY—At all other times than those given above.

VENUS—February 1 and November 17 when in line with the Sun.

MARS—In December.

JUPITER—October 15 to November 15.

SATURN—In July.

URANUS, NEPTUNE and PLUTO—At all times to the naked eye.

LARGE CHART AND MAP OF THE HEAVENS
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EVERY FARM SHOULD HAVE BUSINESS RECORD

Start the new year right by starting a systematic record of your farm business. No business man or manufacturer would even attempt to start the new year without keeping a complete and accurate record of his business. Many of them have less capital invested than the average farmer has in his farm, livestock and equipment.

Every farmer, no matter how large or how small his farm, can keep a farm account to the great profit of his business.

The successful farm is one that maintains its productivity and returns a reasonable wage for the labor of the farmer and his family after paying farm expenses, and deducting a fair rate of interest on the amount of capital invested. Can you prove to your own satisfaction that your farm is doing this? If you know that it is not, can you locate the leaks which are draining your profit? Do you know the actual size of your farm business and what part of your investment is in land, buildings, livestock, machinery, and other capital? Are they properly balanced in their relation to each other? If they are not, can you change them intelligently? Does your crop area properly proportioned to the various crops to the profit derived from each? Have you given any thought or study to the relative effect, the size of business, yield of the crops, production of livestock, and efficiency in the employment of labor throughout the year upon the profit or loss for the year? There is a direct relation between crop rotation, volume of business, sources of income, size of your farm, type of internal farm organization and your labor income for the year.

Five records are necessary to have a complete record of the farm business for the year. They are: an inventory of the farm, machinery, crops and supplies on hand, livestock at the beginning of the year, a record of all farm receipts and expenses, a labor and complete cost record on the more important farm enterprises, a crop summary record showing acreage and yields of the various crops, and an inventory of all farm property at the close of the year.

FEBRUARY, 2d Month.

Weeks and Days.	Remarkable Days.	H. w. h.	The Moon. South morn. h. m.	Place & Age	sets eve. h. m.	Miscellaneous Particulars.	The Sun. slo. m.	rises. h. m.	sets. h. m.
Friday	1 Bridget	1	11 53	♑ 29	4 43	1. Sup. ☌☿☉, ☌♀☾☌☿☾	14	7 10	5 18
Saturday	2 *Candlemas Ground Hog Day*	2	ev. 46	♑ 0	5 49	♀ sets 5 13 e	14	7 09	5 20

5] *4th Sunday after Epiphany* — Day's length 10 hours 13 min.

Sunday	3 Blasius	3	1 38	♒ 1	6 57	♑ sets 7–9 e	14	7 08	5 21
Monday	4 Veronica	4	2 28	♒ 2	8 7	♓ So. 11 e-1 m	14	7 07	5 22
Tuesday	5 Agatha	4	3 17	♓ 3	9 16	Procyon So. 10 34 e	14	7 06	5 23
Wednesd	6 Dorothy	5	4 6	♓ 4	10 26	Sirius So. 9 38 e	14	7 05	5 24
Thursday	7 Richard	6	4 55	♓ 5	11 16	♑ So. 7–9 e	14	7 04	5 26
Friday	8 Solomon	7	5 47	♈ 6	morn	8. Orion So. 8-9e	14	7 02	5 27
Saturday	9 Apolonia	8	6 41	♈ 7	12 47	Moon in Perigee ☾	14	7 01	5 28

6] *5th Sunday after Epiphany* — Day's length 10 hours 29 min.

Sunday	10 Scholastica	9	7 37	♈ 8	1 59	Sup. ☌☿☉, ☌♅☾	14	7 00	5 29
Monday	11 Euphrosina	10	8 36	♈ 9	3 10	♂ sets 5 20 m ♌	14	6 59	5 30
Tuesday	12 Lincoln Bn.	11	9 36	♉ 10	4 17	☌♂☾, ☾ highest ♌	14	6 58	5 32
Wednesd	13 Aurora	12	10 34	♉ 11	5 18	☌♄☾, ♑ rises 6-8 e.	14	6 57	5 33
Thursday	14 *Valentine D.*	12	11 30	♊ 12	6 11	♑ ☌☿♀ ♈ So. 8–9 e	14	6 55	5 34
Friday	15 Faustinus	1	morn	♊ 13	rises eve.	15.Cap. So.7 31e	14	6 54	5 35
Saturday	16 Julianus	2	12 23	♋ 14	6 9	Regulus So.12 19 m	14	6 53	5 36

7] *Septuagesima Sunday.* — Day's length 10 hours 45 min.

Sunday	17 Constantia	3	1 11	♋ 15	7 14	Pollux So. 9 52 e.	14	6 52	5 37
Monday	18 Concordia	3	1 57	♌ 16	8 17	Meteor Showers	14	6 50	5 38
Tuesday	19 Susanna	4	2 41	♌ 17	9 18	☌♆☾, ☉ enters ♓	14	6 49	5 40
Wednesd	20 Eucharius	5	3 23	♌ 18	10 18	☌♃☾, ♋ rises 1–3 m	14	6 48	5 41
Thursday	21 Eleonora	6	4 5	♋ 19	11 17	♃ rises 10 11 e	14	6 46	5 42
Friday	22 Washington's Birthday	6	4 47	♋ 20	morn	M. in Apogee ☽	14	6 45	5 43
Saturday	23 Serenus	7	5 31	♌ 21	12 16	23.L'x So.10 30e	14	6 44	5 44

8] *Sexagesima Sunday* — Day's length 11 hours 3 min.

Sunday	24 *Matthias*	8	6 16	♌ 22	1 15	Perseus So. 5-6 e	13	6 42	5 45
Monday	25 Victor	9	7 4	♌ 23	2 13	Alde'ran So.6 11e ♉	13	6 41	5 47
Tuesday	26 Nestor	10	7 55	♍ 24	3 11	Moon lowest ☾	13	6 39	5 48
Wednesd	27 Leander	11	8 47	♍ 25	4 5	Algol sets 1 45 m	13	6 38	5 49
Thursday	28 Romanus	11	9 41	♋ 26	4 55	♄ sets 4 06 m	13	6 36	5 50

February has 28 Days.

MOON'S PHASES, &c.

New Moon the 1st, at 11 o'clock 43 minutes in the evening; stormy.
First Quarter the 8th, at 11 o'clock 28 minutes in the evening; windy.
Full Moon the 15th, at 11 o'clock 28 minutes in the evening; colder.
Last Quarter the 23rd, at 9 o'clock 36 minutes in the evening; fair.

THE BEST VINES TO PLANT

Within the past few years much has been written and claimed in favor of the purchase and planting of grapevines three, four and even five years of age. The appeal, largely to the uninitiated, has been on the basis that because of age and size such plants come to the bearing stage earlier and are more prolific than younger vines. These assumptions are not borne out by the facts. In truth, the older the grapevine, the less readily can it be transplanted from nursery to vineyard.

Propagators of grapevines usually offer three grades in most varieties—one-year Extra's, one-year No. 1's, and two-year No. 1's. Several factors enter into the production of vines that will grade into one of these classes. First, the cutting wood must bave reached full maturity before the advent of freezes. Second, the growing and maturing seasons must have been favorable for the storage of ample food reserves; and third, soil and climatic conditions must be such that when roots have once struck on the cuttings there will be a continuous growth progression.

Recent investigations have shown the desirability of planting none but heaviest and best-rooted grapevines, whether one or two years old. The better plants get away to a quicker start in the spring, and it has been observed that this favorable start is reflected throughout the entire life of the planting.

The purchaser of grapevines would be justified in buying plants of any of these grades, his choice being largely dependent on the cost of each.

THAWING FROZEN PIPES

Never use an open flame—candle, burning newspapers, etc.—to thaw out frozen water pipes. The stoppage is generally located at or close to the wall where the water supply enters the cellar and may be removed by pouring hot water over the pipe or wrapping it with hot cloths.

REMOVE STAINS

Every housewife who has been confronted with the necessity of removing stains from clothing knows the importance of washing out stains before they dry. After stains dry and become "set" they are often very difficult to remove. The principle of removing stains is similar to that for removing all sorts of dirt, and means finding some substances that will remove the stain mechanically or will absorb or dissolve it. Treatment depends on the color, weight, and material of the garment.

Some stains can be removed by water alone, cold or hot; others resist such simple means and must be treated with special stain removers. These stain removers may absorb the stain, dissolve it, or they may bleach the fibers of the cloth. Bleachers should be used only as a last resort, for they are apt to weaken the fiber, and destroy color.

Water is the most commonly used solvent. However, water will spot some materials, so it is well to experiment with a sample. Soak washable goods in cold water and wash with cold or tepid water and good soap. Stretch the stained goods over a bowl and pour boiling water from a height. In this connection, please remember that hot water sets some stains, such as blood, meat juice, milk, and egg.

Place nonwashable materials over a pad of white cloth or absorbent paper. Then sponge, using very little water at a time. Change the pad as it becomes soiled or wet. Pat gently with a dry cloth until dry.

Other solvents, such as alcohol, carbon tetrachloride, chloroform, ether, gasoline, and turpentine, can be used on materials that water will spot. Place the stained garment over a pad of cloth, apply the solvent, and work from the edge of the stain to the center. Change the under pad frequently.

CEDAR CHESTS

Remember cedar chests will not kill moths or their eggs. But if the garment is put in the chest free from eggs and larvae it will never become damaged from moths. Be certain it is clean before packing away.

MARCH, 3d Month.

Weeks and Days.	Remarkable Days.	H. w. h.	The Moon. South morn. h. m	Place & Age	rises morn. h. m.	Miscellaneous Particulars.	The Sun. slo. m.	rises. h. m.	sets. h. m.
Friday	1 *St. David*	12	10 34	♑ 27	5 40	♀ sets 6 17 m	13	6 35	5 51
Saturday	2 Simplicius	1	11 27	♒ 28	6 19	Dragon's H. So 6-7m	12	6 33	5 52
9]	*Quinquagesima Sunday*					Day's length 11 hours 21 min.			
Sunday	3 Samuel	2	ev. 18	♒ 0	Sets eve	3. ☌♀☾	12	6 32	5 53
Monday	4 Adrian	2	1 9	♓ 1	7 0	□♅☉, ☌☿☾	12	6 30	5 54
Tuesday	5 *Shrove Tue.*	3	2 0	♓ 2	8 12	Canopus So. 7 32 e	12	6 29	5 55
Wednesd	6 *Ash Wed.*	4	2 50	♓ 3	9 24	Moon in Perigee ☾	12	6 27	5 56
Thursday	7 Perpetua	5	3 42	♈ 4	10 38	♋ So. 1–3 m	11	6 26	5 57
Friday	8 Philemon	6	4 36	♈ 5	11 51	♈ sets 10–12 e	11	6 24	5 58
Saturday	9 Prudence	7	5 33	♉ 6	morn	☌♅☾, ♀Gr. Elong. E,	11	6 23	6 00
10]	*Quadragesima Sun. 1st Sun. in Lent.*					Day's length 11 hours 40 min.			
Sunday	10 40 Martyrs	7	6 31	♉ 7	1 2	10. ☌sets 3 33m ♊	11	6 21	6 01
Monday	11 Ernestus	8	7 30	♊ 8	2 11	Moon highest ☊	10	6 20	6 02
Tuesday	12 Gregory	9	8 28	♊ 9	3 13	☌☌☾, ☌♄☾	10	6 18	6 03
Wednesd	13 *Ember Day*	10	9 23	♋ 10	4 8	Spica So. 1 58 m	10	6 16	6 04
Thursday	14 Zachariah	11	10 16	♋ 11	4 53	Sickle So. 10 30 e	10	6 15	6 05
Friday	15 *Ember Day*	12	11 5	♌ 12	5 31	Lynx So, 9 30 e	9	6 13	6 06
Saturday	16 *Ember Day*	1	11 51	♌ 13	6 4	Twins So, 7–8 e	9	6 12	6 07
11]	*2nd. Sunday in Lent*					Day's length 11 hours 58 min.			
Sunday	17 *St. Patrick*	2	morn	♌ 14	rises eve.	17. Arc. S. 2 33m	9	6 10	6 08
Monday	18 Ancelmus	2	12 35	♍ 15	7 5	☌☿☾, ☌♅☾, ♀☌♄	8	6 08	6 09
Tuesday	19 Josephus	3	1 17	♍ 16	8 5	☌♃☾, Or'n sets 11-12e	8	6 07	6 10
Wednesd	20 Matrona	4	1 59	♌ 17	9 5	Denebola So. 11 54 e	8	6 05	6 11
Thursday	21 Benedictus	4	2 42	♌ 18	10 5	☉ enters ♋	8	6 04	6 12
Friday	22 Pauline	5	3 25	♌ 19	11 4	Moon in Apogee ☽	7	6 02	6 13
Saturday	23 Eberhard	6	4 10	♎ 20	morn	Ald'ran sets 11 28 e	7	6 00	6 14
12]	*3rd Sunday in Lent*					Day's length 12 hours 16 min.			
Sunday	24 Gabriel	6	4 57	♎ 21	12 3	Ham. sets 9, 24e ♉	7	5 59	6 15
Monday	25 *Ann. V. M.*	7	5 46	♏ 22	1 0	25. Cas.So, 7 20e	6	5 57	6 16
Tuesday	26 Emanuel	8	6 36	♏ 23	1 56	Inf. ☌☿☉, ☾lowest ♋	6	5 55	6 17
Wednesd	27 Gustavus	9	7 29	♐ 24	2 47	Pollux So, 7 23 e	6	5 54	6 18
Thursday	28 Malchus	10	8 21	♐ 25	3 33	☌♆☉, ♒So. 8–9 e	5	5 52	6 19
Friday	29 Eustachius	11	9 13	♐ 26	4 14	Sirius sets 11 18 e	5	5 50	6 20
Saturday	30 Guido	12	10 5	♑ 27	4 50	♄ sets 2 08 m	5	5 49	6 21
13]	*Mid-Lent Sunday*					Day's length 12 hours 35 min.			
Sunday	31 Amos	1	10 56	♑ 28	5 23	☌☿☾, ♉sets 1–3 m	4	5 47	6 22

March has 31 Days.

MOON'S PHASES, &c.

New Moon the 3rd, at 1 o'clock 1 minute in the afternoon; warmer.
First Quarter the 10th, at 7 o'clock 3 minutes in the morning; stormy.
Full Moon the 17th, at 2 o'clock 11 minutes in the afternoon; unsettled.
Last Quarter the 25th, at 5 o'clock 37 minutes in the evening; stormy.

PLANNING THE GARDEN

The most successful gardens are well planned. This planning, of course, and much of the preparation for the garden, should be started in the fall.

The primary object of most vegetable gardens is to supply the family's needs. Therefore, the first planning for the garden should be a liberal estimate of the family's requirements for the ensuing year—fresh vegetables, stored vegetables and canned vegetables. For instance, it is useless to plant squash, if the family cannot be induced to eat squash; better put the ground to sweet corn.

Having determined the kinds of vegetables to plant and the amounts of each that will be required, the necessary garden space is easy to compute, for the row space required for growing definite quantities of the common vegetables is listed in most seed catalogues and in bulletins on gardening, available from the U. S. Department of Agriculture and the various state agricultural colleges. The kinds of fertilizers and the amounts needed can be computed with the aid of similar helps.

The selection of varieties is another important detail. Some varieties of cabbage, lettuce, tomatoes and other vegetables will do better in one section than will other varieties of the same vegetables. Then, certain varieties are needed for early planting and others for mid-summer and fall maturity.

Consideration must also be given to the protection of the garden. Order a liberal supply of insect destroyers, remembering that there are two kinds of insects—those that bite and those that suck. For each a separate poison is needed. Other sprays are needed to check blight and diseases. Have this poison on hand, also the sprayers to apply it, for fighting insects and diseases is like fighting fire—a quick start is most effective. Order your seed, fertilizers and spray materials early to avoid delay and disappointment.

The garden should be located near the house, so that the women folks can make hurried trips to it when preparing meals. It should be planted so that it can be cultivated with horse-drawn implements, thus saving much hand labor. For that reason the garden plot should be long and narrow, rather than square. If possible, the rows should run north and south. Take careful stock of your hand implements—rakes, hoes, forks, weeders, etc. A wheel-hoe is a great convenience in most any garden.

Lettuce, radishes and other early-maturing and frequently-used vegetables should be planted in the near end of the garden; the corn, melons and other later maturing and less frequently used ones in the other end.

Careful consideration should be given to the rotation; many plantings can be made in spaces left vacant by the early-maturing crops. Empty spaces soon grow up in weeds. Sweet corn should be planted at intervals of about two weeks so that the supply will continue from the earliest maturity to late fall.

MEASURING EAR CORN IN CRIB

To find the number of bushels of ear corn in a crib or wagon-box, use this rule: First, multiply the length of crib or box by the width, and this product by the height to obtain the cubic contents of crib or box. Then divide the cubic contents by two and one-half, as a bushel of ear corn occupies two and one-half cubic feet of space; the quotient will be bushels of 70 pounds each. Another rule is to multiply contents in cubic feet by four and strike off the right-hand figure of the product. The product will be bushels of 70 pounds each.

SWOLLEN WINDOW FRAMES

Oftentimes windows stick when the frames are swollen after damp and rainy weather. A tablespoonful of lard and pour between the window frame and casing, also a little on the roller and rope if the window is so equipped. It works like magic.

APRIL, 4th Month.

Weeks and Days.	Remarkable Days.	H. w. h.	The Moon. South morn. h. m.	Place & Age	Sets eve. h. m.	Miscellaneous Particulars.	The Sun. slo. m.	rises. h. m.	sets h. m
Monday	1 Theodora	1	11 47	♑ 29	5 50	1. ♀sets 7 30 e	4	5 46	6 23
Tuesday	2 Theodosia	2	ev. 39	♑ 0	7 3	♂♀☾-♑ sets 1-3m	4	5 44	6 24
Wednesd	3 Ferdinand	3	1 32	♑ 1	8 18	Moon in Perigee ☾	4	5 42	6 25
Thursday	4 Ambrosius	4	2 27	♑ 2	9 34	Pleiades sets 10 30 e	3	5 41	6 26
Friday	5 Maximus	4	3 24	♑ 3	10 50	Regulus So. 9 11 e	3	5 39	6 27
Saturday	6 *Army Day*	5	4 24	♑ 4	morn	♂♅☾,♑ rises 8-10e ♌	3	5 38	6 28

14] *5th Sunday in Lent.* Day's length 12 hours 53 min.

Sunday	7 *Passion Sun.*	6	5 24	♒ 5	12 2	Per's sets 11 50e	2	5 36	6 29
Monday	8 Dionysius	7	6 23	♒ 6	1 9	8.♂♄☾,☾ high. ♌	2	5 34	6 30
Tuesday	9 Procborus	8	7 20	♓ 7	2 6	♂♂☾ (close)	2	5 33	6 31
Wednesd	10 Daniel	9	8 13	♓ 8	2 54	Nor. Cr'n rises 6-7 e	2	5 31	6 32
Thursday	11 Esekiel	10	9 2	♈ 9	3 34	♂ sets 1 59 m	1	5 30	6 33
Friday	12 Julius	11	9 49	♈ 10	4 8	♂♃⊙,♒ sets 2-4 m	1	5 28	6 34
Saturday	13 *Jefferson born*	12	10 33	♈ 11	4 36	Belt of Orion sets 10e	1	5 27	6 35

15] *Palm Sunday* Day's length 13 hours 11 min.

Sunday	14 *Pan Amer.*	12	11 15	♎ 12	5 2	♂♆☾,♓ sets 10–12e	1	5 25	6 36
Monday	15 Olympia	1	11 56	♎ 13	5 27	♂♃☾,♈ s.11-12e	0	5 24	6 37
Tuesday	16 Calixtus	2	morn	♏ 14	rises eve.	16. Sic. so. 8 30e	fast	5 22	6 38
Wednesd	17 Rudolph	2	12 38	♏ 15	7 55	Pollux sets 1 56 m		5 21	6·40
Thursday	18 *Maundy Th.*	3	1 21	♏ 16	8 55	□♂⊙♓ rises 10-12 e	0	5 19	6 41
Friday	19 *Good Friday*	4	2 5	♐ 17	9 55	Moon in Apogee ☽	1	5 18	6 42
Saturday	20 Sulpitius	4	2 51	♐ 18	10 53	⊙enters♓ ♉	1	5 16	6 43

16] *Easter Sunday.* Day's length 13 hours 29 min

Sunday	21 *Easter Sun.*	5	3 40	♑ 19	11 49	Saturn sets 12 45 m	1	5 15	6 44
Monday	22 *Easter Mon.*	6	4 29	♑ 20	morn	Moon lowest ☾	1	5 13	6 44
Tuesday	23 *St. George*	7	5 20	♒ 21	12 41	☿Gr, Elong. W.	2	5 12	6 45
Wednesd	24 Albert	7	6 12	♒ 22	1 28	24.Cra. so. 9 10e	2	5 10	6 46
Thursday	25 *Mark Evan.*	8	7 3	♓ 23	2 10	Antares So, 2 01 m	2	5 09	6 48
Friday	26 SOUTHERN MEMORIAL DAY	9	7 53	♓ 24	2 47	Procyon sets 11 39e	2	5 08	6 49
Saturday	27 *Grant born*	10	8 43	♓ 25	3 20	Sirius sets 9 24 e	2	5 06	6 50

17] *1st Sunday After Easter--Low Sunday* Day's length 13 hours. 46 min.

Sunday	28 Vitalis	11	9 33	♑ 26	3 51	♋So. 1 30–3 30 m	2	5 05	6 51
Monday	29 Sybilla	12	10 24	♑ 27	4 20	♂☿☾, Spica So. 10 53e	3	5 04	6 52
Tuesday	30 Eutropius	1	11 16	♑ 28	4 50	Denebola So. 9 13 e	3	5 02	6 53

April has 30 Days.

MOON'S PHASES, Etc.

New Moon the 1st, at 11 o'clock 37 minutes in the evening; fair.
First Quarter the 8th, at 3 o'clock 4 minutes in the afternoon; cooler.
Full Moon the 16th, at 5 o'clock 47 minutes in the morning; unsettled.
Last Quarter the 24th, at 10 o'clock 18 minutes in the morning; warmer.

SCRAPE TREES CAUTIOUSLY

A healthy tree seldom needs scraping, although some amateurs seem to think that the reverse is true. Neglected trees and those which are not healthy sometimes have long, or loose, rough bark, which makes an excellent place for insects to winter. Such trees should be scraped, but even then only the loose outer bark should be removed. Do not scrape into the live, healthy tissue, otherwise more harm than good will be done.

The best tool to scrape with is a three-cornered scraper, such as can be secured from almost any seed store. An old hoe will make a handy tool for this work if the handle is cut down to two feet in length.

The best time to scrape trees is in March or April, when growth is beginning to take place. Do not scrape deep, for then the protecting bark will be removed, and the live, growing tissue injured. Pick up and burn all scrapings, to destroy whatever insect eggs they may have upon them.

HARDWOOD MAT FOR MUDDY FEET

Spring rains mean mud—and, unless you have a good doormat, mud means tracked-up floors. On the market is a completely nonpriority mat that is brand new. It's made of hardwood strips, linked in sections like the chain metal mats of pre-war times. It's good for scraping off dirt from muddy feet and can be scrubbed.

Because of its chain-link construction, the mat can roll up and be put away when summer comes. The wood is natural-colored and unfinished and the links are securely doweled together. This mat will be useful on a laundry floor where it is advisable to raise your feet off the damp cement.

Bobby: "No, mother, I put them in the pocket of the man who sat beside me."

GOOD FARM TOOLS

Good tools for farm work are not only convenient, but they are absolutely essential for accomplishing the best results in the system of present day farming. With good tools good work can be done; without them nothing of importance is possible. The man who has hay to harrow can cut it with the scythe and place it under shelter with his hands and a handcart.

In this way he can harvest and store in the season for a horse or cow, but he cannot in this way put up enough feed for a dozen or a half a hundred animals. With the modern mower and horse rake for field work and hay fork, track and rope in the barn for unloading he can harvest more hay in one day than he could in a week by the old method.

Good tools, first of all, are a time saver and money maker. With them things can be done neatly, cheaply and quickly. Poor tools are better than no tools at all, but good tools are so far ahead of poor tools that one can't be made to believe the difference until he has used both.

Take, for instance, the old fashioned one horse shovel plow and the modern two horse cultivator. With the latter a man and team can cultivate twice as much corn or other crop in one day as he can with the former and do the work much better. With $15 or $20 more in the cost of the tools the farmer during the busy season can save the wages and board of a hired man. This would mean for the four or five years' life of the tool a saving of from $100 to $150 in hired help, which is equal to four or five times the cost of the tool.

The hand saw, axe, cream separator, plow, mowing machine or manure spreader will pay for itself or its extra cost over poor grades of tools ten to a hundred times over in comparison to the use of similar poor tools. With good tools the farmer can go right along and make money, while with poor tools he will always drag behind and never get on his feet or become independent.

MAY, 5th Month.

Weeks and Days.	Remarkable Days.	H. w. h.	The Moon. South eve h. m.	Place & Age	sets eve. h. m.	Miscellaneous Particulars.	The Sun. fast m.	rises. h. m.	sets. h. m.
Wednesd	1 *Philip & James*	2	12 10	♑ 0	7 8	1.☿ sets 8 41 e	3	5 01	6 54
Thursday	2 Sigismund	2	1 8	♒ 1	8 27	☌☿☾, ☾ in Peri. ☾	3	5 00	6 55
Friday	3 *Inv. of Cross*	3	2 9	♒ 2	9 44	☌♅☾, ♑ sets 9-10 e	3	4 59	6 56
Saturday	4 Florianus	4	3 11	♓ 3	10 56	Bernices H so, 10e ♌	3	4 57	6 57
18]	*2nd Sunday After Easter*					Day's length 14 hours 2 min.			
Sunday	5 Godard	5	4 14	♓ 4	11 59	Moon highest ☊	3	4 56	6 58
Monday	6 Aggeus	6	5 13	♑ 5	morn	☌♄☾, ♐So. 11-12 e	3	4 55	7 59
Tuesday	7 Domicilla	7	6 9	♑ 6	12 52	☌♂☾, ♑So. 7-9 e	3	4 54	7 00
Wednesd	8 Stanislaus	7	7 0	♑ 7	1 35	8.Reg. sets 145m	4	4 53	7 01
Thursday	9 Job	8	7 48	♐ 8	2 11	Alphard sets 11 41 e	4	4 52	7 02
Friday	10 Mamertus	9	8 32	♐ 9	2 41	♑ So. 5–6 m	4	4 51	7 03
Saturday	11 Pancratius	10	9 14	♏ 10	3 8	☌♆☾, ♂ sets 12 43 m	4	4 50	7 40
19]	*3rd Sunday After Easter*					Day's length 14 hours 16 min.			
Sunday	12 *Mothers' Day*	11	9 56	♎ 11	3 32	☌☿♅, ☌♃☾	4	4 49	7 05
Monday	13 Servtius	12	10 37	♎ 12	3 56	Centaur So. 10-11 e	4	4 48	7 06
Tuesday	14 Christianus	1	11 19	♓ 13	4 19	♓ sets 12-2 m	4	4 47	7 07
Wednesd	15 Sophia	1	morn	♓ 14	rises eve	15. ♓ So. 1-2 m	4	4 46	7 08
Thursday	16 Perigrinus	2	12 3	♋ 15	7 47	Moon in Apogee ☽	4	4 45	7 08
Friday	17 Jodocus	3	12 48	♋ 16	8 46	Crow So, 8 30–9 30e	4	4 44	7 09
Saturday	18 *Peace Day*	3	1 36	♋ 17	9 44	♑ sets 1-3 m ♉	4	4 43	7 10
20]	*4th Sunday After Easter*					Day's length 14 hours 29 min.			
Sunday	19 Potentia	4	2 25	♓ 18	10 37	Moon lowest ☋	4	4 42	7 11
Monday	20 Torpetus	5	3 16	♓ 19	11 26	Aquila rises 9 e	4	4 41	7 12
Tuesday	21 Hospitins	6	4 7	♌ 20	morn	☉ enters ♊	4	4 40	7 13
Wednesd	22 *Nat. Mari D.*	6	4 57	♌ 21	12 9	☽ Nr, Cr. so 11-12e	4	4 40	7 14
Thursday	23 Desiderins	7	5 47	♍ 22	12 47	23. ♓ri's 11-12e	3	4 39	7 15
Friday	24 Esther	8	6 35	♍ 23	1 20	Lyra So. 2-3 m	3	4 38	7 16
Saturday	25 Urbanus	9	7 23	♍ 24	1 51	Deneb So. 4 28 m	3	4 37	7 16
21]	*5th Rogation Sunday after Easter.*					Day's length 14 hours 40 min.			
Sunday	26 Edward	10	8 12	♑ 25	2 19	Crater So. 7 e	3	4 37	7 17
Monday	27 Lucianus	11	9 2	♑ 26	2 47	M'maids Dip, so. 2m	3	4 36	7 18
Tuesday	28 Wlliiam	12	9 54	♑ 27	3 17	Antares So. 12 01 m	3	4 36	7 19
Wednesd	29 Maximilian	12	10 49	♑ 28	3 49	♌ Sat. sets 10 23 e	3	4 35	7 20
Thursday	30 ASCENSION DAY MEMORIAL DAY	1	11 49	♊ 0	sets eve.	30.☌☿☾, ☾ in Pr☾	3	4 34	7 21
Friday	31 Manilius	2	ev. 51	♊ 1	8 32	☌♅☾, Sup. ☌☿☉ ♌	3	4 34	7 22

May has 31 Days.

MOON'S PHASES, &c.

New Moon the 1st, at 8 o'clock 16 minutes in the morning; stormy.
First Quarter the 8th, at 12 o'clock 13 minutes in the morning; unsettled.
Full Moon the 15th, at 9 o'clock 52 minutes in the evening; fair.
Last Quarter the 23rd, at 11 o'clock 2 minutes in the evening; rainy.
New Moon the 30th, at 3 o'clock 49 minutes in the afternoon; windy.

MAY-APPLE A POISONOUS PLANT

Although the ripe fruits of common May-apple are edible in small quantities, the roots and foliage are poisonous to stock and man. May-apple contains a drug that is used medically, but over-doses have proved to be fatal to man, a fact that has been clearly established by the medical profession.

Indeed, so poisonous are the effects, that in drug houses where May-apple roots must be handled, and particularly where they are ground, poisoning among employees is not rare, resulting in severe nausea, prostration, the formation of ulcers and inflammation of the skin and eyes. One authority states that when the leaves are eaten by cows, the milk may become injurious.

That eating May-apple may prove fatal to livestock is indicated by the experience of a farmer who turned three hogs into a rather bare wood-lot during early March, when there was practically nothing else to eat except young shoots of May-apple that were just coming through the ground. Two of the animals died, and an examination of the stomach contents revealed the presence of both the shoots and roots of May-apple, while there was plenty of field evidence that the animals had done considerable rooting. The third hog remained healthy, probably due to the fact that it had a ring in the nose.

PLANT SEEDLINGS

Cabbage plants and all plants transplanted to the garden should possess strong root systems. Plants should be strong and stocky—not spindly. Cabbage and other plants should be set only a little deeper than they stood in the seedlings plot.

BLURRED VISION

"Do you mean to say you washed your face, Tommy?" demanded that youngster's mother.

"Yes'm," replied Tommy.

"Nonsense! It's just as dirty as ever."

"Mebbe the dirt's on your glasses, mom. Wipe 'em off."

QUALITY COUNTS IN VEGETABLES

We all know that an apple is at its best at a certain season. It must not be too green, it must not be too ripe. It is less generally known that garden truck also has the best flavor when it has been harvested at exactly the right time.

For example, string beans should be pulled before they get too ripe to break with a snap. Remember that there is a new crop, ready every two or three days, that should be kept picked, or the beans will start to ripen and your plants stop producing the young, tender, desirable beans.

Most varieties of beets are just about right for harvest when they are about two inches in diameter. Radishes must be harvested every few days or you will find they are becoming pithy. Peas in particular must be harvested when they are tender and small. They soon grow past their best flavor.

Another thing about most all the vegetables, and this goes especially for peas, sweet corn and beans: Just as soon as possible after the crop is harvested it should be gotten into the pot. Even the delay of a few hours will take away something of the flavor of the sweet corn and peas. Remember this point when you are canning any of these crops for it is important when it comes to getting quality into the winter store of canned goods.

Always gather leaf crops like lettuce, spinach, kale, etc., early in the morning when the plant cells are filled with water and covered with dew. At that time they are fresh, crisp, and tender. Later in the day they wilt and lose that fresh, crisp tenderness that makes the difference between the fresh green vegtables from the garden and those bought on the city market stalls.

A THOUGHTFUL YOUNGSTER

Mother: "Bobby, when you were eating nuts in the street car, I hope you didn't throw the shells on the floor."

JUNE, 6th Month.

Weeks and Days.	Remarkable Days.	H. w. h.	The Moon. South eve, h. m.	Place & Age	sets eve. h. m.	Miscellaneous Particulars.	The Sun. fast m.	rises. h. m.	sets. h. m.
Saturday	1 Nicodemus	3	1 56	♋ 2	9 43	☌☿☾(close), ☾hi'st. ◠	2	4 33	7 23
22]	*Sunday after Ascension*					Day's length 14 hours 50 min.			
Sunday	2 Marcellus	4	2 59	♋ 3	10 42	☌♄☾, ☿ sets 9 33 e	2	4 33	7 23
Monday	3 Erasmus	5	3 59	♌ 4	11 32	☌☿♅, ♐ sets 9-11 e	2	4 33	7 23
Tuesday	4 Darius	6	4 54	♌ 5	morn	☌☌☾, Cas'r sets 10 55e	2	4 32	7 24
Wednesd	5 Bonifacius	7	5 44	♍ 6	12 11	☽ Deneb So. 3 45m	2	4 32	7 25
Thursday	6 Artenius	7	6 30	♍ 7	12 44	☽ 6. Cyg's So. 2-4m	2	4 32	7 25
Friday	7 Lucretia	8	7 14	♎ 8	1 12	☌♆☾, ♌ sets 12-1m	1	4 31	7 26
Saturday	8 Medardus	9	7 55	♎ 9	1 37	☌♅☉, r ♌ ises 10-12 e	1	4 31	7 27
23]	*Pentecost—Whit Sunday*					Day's length 14 hours 56 min.			
Sunday	9 CHILDREN'S DAY	10	8 36	♎ 10	2 1	☌♃☾, ♋ So. 10-12 e	1	4 31	7 27
Monday	10 Barnabus	11	9 18	♋ 11	2 24	Hydra So. 12-1m	1	4 31	7 28
Tuesday	11 Basilides	11	10 1	♋ 12	2 49	Mars sets 11 34 e	1	4 30	7 28
Wednesd	12 *Ember Day*	12	10 46	♌ 13	3 16	☌☿♄, M. in Apog. ☽	1	4 30	7 29
Thursday	13 Tobias	1	11 33	♌ 14	3 46	☽ ♌ rises 8–10 e	0	4 30	7 29
Friday	14 FLAG DAY EMBER DAY	2	morn	♌ 15	rises eve.	☽ 14. UNUNK SO. 10 14 e ♉	slow	4 30	7 30
Saturday	15 Rolandus	2	12 22	♍ 16	8 33	Antares So. 10 54 e		4 30	7 30
24]	*Trinity Sunday*					Day's length 15 hours 0 min.			
Sunday	16 *Fathers' Day*	3	1 12	♍ 17	9 24	Moon lowest ◡	0	4 30	7 30
Monday	17 Barnimus	4	2 3	♎ 18	10 9	Spica So. 7 40 e	1	4 30	7 31
Tuesday	18 Arnopolss	4	2 54	♎ 19	10 48	Hercules So. 11-12 e	1	4 30	7 31
Wednesd	19 Gervasius	5	3 44	♎ 20	11 23	Sickle sets 11 e	1	4 30	7 32
Thursday	20 *Corpus Christ*	6	4 32	♏ 21	11 53	Bernices Hair So. 7e	1	4 31	7 32
Friday	21 Raphael	7	5 19	♏ 22	morn	☽ ☉en's r ♋ SUMMER BEGINS	1	4 31	7 32
Saturday	22 Achatius	7	6 6	♐ 23	12 21	☽ 22. ♌ rises 9-11e	2	4 31	7 32
25]	*1st Sunday after Trinity*					Day's length 15 hours 1 min.			
Sunday	23 *John, Bapt.*	8	6 53	♐ 24	12 49	☌☿♄, ♌ rises 12-2 m	2	4 31	7 32
Monday	24 Agrippina	9	7 43	♐ 25	1 16	Algenib rises 12 12m	2	4 32	7 32
Tuesday	25 Elogius	10	8 34	♐ 26	1 46	Corvus sets 11 e	2	4 32	7 33
Wednesd	26 Jeremiah	11	9 30	♑ 27	2 19	Meteors 27th-30th	2	4 32	7 33
Thursday	27 Sleepers	12	10 30	♑ 28	2 59	☽ ☌♅☾, □♆☉, ♊ ☾	3	4 33	7 33
Friday	28 Leo	1	11 34	♋ 29	sets eve.	☽ 28. ♄ set 8 38 e	3	4 33	7 33
Saturday	29 *Peter & Paul*	2	ev. 39	♋ 0	8 25	Moon highest ◠	3	4 33	7 33
26]	*2nd Sunday after Trinity.*					Day's length 14 hours 59 min.			
Sunday	30 Lucina	3	1 42	♌ 1	9 20	☌♄☾, ☌☿☾	3	4 34	6 33

June has 30 Days.

MOON'S PHASES, &c.

First Quarter the 6th, at 11 o'clock 6 minutes in the morning; unsettled.

Full Moon the 14th, at 1 o'clock 42 minutes in the afternoon; stormy.

Last Quarter the 22nd, at 8 o'clock 12 minutes in the morning; fair.

New Moon the 28th, at 11 o'clock 6 minutes in the evening; warmer.

WAIT TILL THE PETALS DROP

From the standpoint of both the bee-keeper and the fruit grower it is desirable that every precaution be taken in the spraying of the trees to prevent injury to the bees. Some have insisted that no injury was done to the bees by the spraying of the trees in full bloom with arsenicals, but beekeepers have felt for a long time that the bees were poisoned as a result of spraying. Recently a number of systematic investigations have been conducted to determine whether or not honey bees are actually injured by the chemicals used in spraying. After one season's work in two states it was determined definitely that spraying during full bloom was detrimental to bees. After three seasons' work on the problem in four states and five different localities it was ascertained that spraying at the customary time under nearly ideal conditions was not injurious to the bees. Unfortunately nearly ideal conditions seldom prevail.

It is now generally admitted that arsenicals used as a control for codling moth give the best results when they are applied in the first spray after most of the petals have fallen though in commercial orchards where hundreds of acres of trees must be sprayed within a limited time it may be necessary to begin spraying early in order to finish the work before the calyx cup closes. However, the codling moth can be as well controlled by spraying when 90 percent of the petals have fallen as at any other time and, therefore, in your home orchard it will be wise to spray at that time rather than any sooner. You will get just as good control if you wait until practically all the petals are off and you will not be working an injury to the bees. Remember that without the bees to furnish cross-pollination some of the fruit trees would never bear a crop of fruit.

TAKE CARE OF CUTLERY

The blades of your kitchen knives should be used **only** for food purposes. If you insist on cutting paper and string, metal or bone with them, you dull them quickly.

AN HERB GARDEN

For garnishings and flavorings for meats, vegetables, soups, etc., some pot and sweet herbs are a necessity for every garden. Every housewife uses herbs, more or less, and it is a convenience to have the kind you want when you want it.

They are very easily grown and easily dried to put away for winter use. Some are perennial and some of them are annuals. The annuals, however, are usually very certain to reseed themselves. In fact, they often become great nuisances if allowed to do this with no restrictions. If one is careful to allow but a bunch or so on one stalk to go to seed there will not be much to fear. This is true of dill, in particular. One single stalk, if allowed to mature seed, will seed quite an enormous spot of ground for the following spring. But if only a bunch or two is left on one plant to seed one can quickly and easily keep it in check.

Select a place for the herbs where they will be allowed to stand unmolested from year to year—a corner of the garden nearest the kitchen door will be a convenient place. Some of the herbs mentioned here are used in a large commercial way, but home use is all that is considered here.

One of the most widely used herbs is sage. It lives over winter and grows about a foot high the first season. One plant will cover two to three feet of space about it, so two or three plants are plenty. Sage, used so much for stuffing, is liked by some to flavor sausage at butchering time.

Anise is an annual. The leaves are used as a garnish, and the seeds in candy and cakes, as are also the seeds of coriander and caraway. Both of these are annuals. The leaves of sweet basil, an annual, are used for flavoring soups or highly seasoned dishes. The seeds of chives, an annual, are used for seasoning. Dill, an annual, has feathery leaves, and these with the stalks and seeds are used in making many kinds of pickles, and also to flavor soup. Sweet fennel, a perennial, is a lovely plant to furnish leaves for garnishing, and when boiled used in different fish sauces.

JULY, 7th Month.

Weeks and Days.	Remarkable Days.	H. w. h.	The Moon. South eve. h. m.	Place & Age	sets eve. h m.	Miscellaneous Particulars.	The Sun. slo. m.	rises. h. m.	sets. h. m.
Monday	1 Theobald	3	2 20	♌ 2	10 6	☌☿☾,☿sets 9 42 e	3	4 34	7 33
Tuesday	2 *Visit. V. M.*	4	3 34	♌ 3	10 42	Algenib rises 10 41 e	4	4 35	7 33
Wednesd	3 *Dog Day's*	5	4 24	♌ 4	11 13	⊕furt. from ☉,☌☌☾	4	4 35	7 32
Thursday	4 *Independence*	6	5 9	♌ 5	11 40	Lyra So. 11-12 e	4	4 36	7 32
Friday	5 Demetrius	7	5 52	♎ 6	morn	☌♆☾,☿Gr. Elg. E,	4	4 36	7 32
Saturday	6 *John Huss*	7	6 34	♎ 7	12 4	6.☌♅☾ ris. 12-2m	4	4 37	7 32

27] *3rd Sunday after Trinity.* Day's length 14 hours 55 min.

Sunday	7 Edelburga	8	7 16	♍ 8	12 28	Vega So. 11 34 e	5	4 37	7 31
Monday	8 Aquilla	9	7 58	♍ 9	12 52	□ of Pegas. ris. 9-10e	5	4 38	7 31
Tuesday	9 Zeno	10	8 42	♍ 10	1 19	Antares So. 9 16 e	5	4 39	7 32
Wednesd	10 Israel	11	9 29	♎ 11	1 47	Moon in Apogee ☽	5	4 39	7 30
Thursday	11 Pius	12	10 17	♎ 12	2 20	□♄☉,☌sets 10 08 e ♉	5	4 40	7 30
Friday	12 Henry	12	11 7	♏ 13	2 59	♍So. 9–11 e	5	4 41	7 30
Saturday	13 *Margaret*	1	11 59	♏ 14	3 44	Moon lowest ☋	5	4 41	7 29

28] *4th Sunday after Trinity.* Day's length 14 hours 47 min.

Sunday	14 Bonavent.	2	morn	♏ 15	rises eve.	14.♐ sets 10-12e	6	4 42	7 29
Monday	15 *St. Swithin*	2	12 50	♐ 16	8 48	♐ rises 2-4m	6	4 43	7 28
Tuesday	16 Hilary	3	1 41	♐ 17	9 25	Great Cross so. 11. 12e	6	4 44	7 28
Wednesd	17 Alexius	4	2 30	♑ 18	9 57	Orion rises 3-4m	6	4 44	7 27
Thursday	18 Maternus	5	3 17	♑ 19	10 25	Altair So. 12 04 m	6	4 45	7 26
Friday	19 Rufina	6	4 4	♐ 20	10 52	Dragon's H So. 9-10e	6	4 46	7 26
Saturday	20 Elias	6	4 50	♐ 21	11 19	Pleiades rise 12 30m	6	4 47	7 25

29] *5th Sunday after Trinity.* Day's length 14 hours 36 min.

Sunday	21 Praxedes	7	5 38	♐ 22	11 47	21.☌♄☉,♃s't 10-56e	6	4 48	7 24
Monday	22 *Mary Magd.*	8	6 27	♐ 23	morn	Hyades ri. 1 30m	6	4 48	7 24
Tuesday	23 Apollinaris	9	7 20	♐ 24	12 18	☉ enters ♌	6	4 49	7 23
Wednesd	24 Christiana	10	8 16	♑ 25	12 53	Aquila So, M'night	6	4 50	7 22
Thursday	25 *St. James*	11	9 16	♑ 26	1 36	☌♅☾,☾ in Pe'gee ☊☾	6	4 51	7 21
Friday	26 *St. Ann*	12	10 19	♒ 27	2 28	Moon highest ♒	6	4 52	7 20
Saturday	27 Martha	1	11 23	♒ 28	3 30	☌♄☾, Meteors	6	4 53	7 19

30] *6th Sunday after Trinity* Day's length 14 hours 24 min.

Sunday	28 Pantaleon	1	ev. 24	♌ 0	sets eve.	28,☌☿☾	6	4 54	7 18
Monday	29 Beatrix	2	1 20	♌ 1	8 36	J C'fn so 12 30m	6	4 54	7 18
Tuesday	30 Abdon	3	2 13	♌ 2	9 10	♄ rises 4 23 m	6	4 55	7 17
Wednesd	31 Germanus	4	3 1	♌ 3	9 39	☌☿☾,☌☌☾	6	4 56	7 16

July has 31 Days.

MOON'S PHASES, &c.

First Quarter the 6th, at 12 o'clock 15 minutes in the morning; fair.
Full Moon the 14th, at 4 o'clock 22 minutes in the morning; hot.
Last Quarter the 21st, at 2 o'clock 52 minutes in the afternoon; stormy.
New Moon the 28th, at 6 o'clock 53 minutes in the morning; unsettled.

A POWER AGE

Labor is attracted away from the farms to the cities because power machinery has enabled labor to accomplish more in a day and in fewer hours and at higher wages, than the same laborers could possibly accomplish on the farms at less wages. Only those who enjoy country life, or work on farms as a school of experience for their own future farming, can be expected to remain as farm laborers.

With a shortage of labor the farmer must meet the situation with more power machinery. Men and teams cannot compete with a man and tractor when plowing conditions are favorable to tractors. Men and teams cannot compete in corn husking with the power husker, any more than men and scythes can compete with the mowing machine.

There is joy in the heart of a man when a tractor moves steadily on and on, heedless of heat or the hard draw of the plows. There is thrill to the worker when its hum keeps him hustling to feed the grain grinder and remove the grist. There is pride in achievement when by the turn of a switch an electric motor automatically keeps the water pressure system full.

It is far better to wear out power equipment by making use of it than to carry it as an idle overhead expense, or to rust out by lack of use. Therefore, watch the supply of oil for lubrication, gasoline for power, electric fuses for emergencies, and all the little things, the lack of which are used as excuses for not letting the tractor, the engine or motor do the work, so that these sources of power may displace or increase man power on the farm. The labor situation has come to stay.

If some national crisis should throw millions of labor out of city employment this labor would not fit well into farm needs, unless the farms were equipped to utilize more machinery. And when that is done, fewer men need be hired unless the farmers want to take it easier themselves. The power that pays is the power that is being worn out by use.

CROPS FOR CANNING

As only a comparatively few home-grown vegetables can be kept for winter use by storing them in their natural state, definite plans should be made for those which are to be saved by canning and dehydrating. With the widely extended use of electricity, dehydrating is both much easier and more certain than it used to be.

A common mistake in connection with both canning and dehydrating is the erroneous idea that only surpluses of vegetable crops should be used for these purposes. Such surpluses are almost sure to be past their prime in quality when used, and are usually ready when it is not convenient to do the work. A much better method is to plant crops especially for canning and drying, and to "time" them so that they will be ready when weather conditions are likely to be best. For dehydrating this is in late summer, while it is still hot but not muggy; and for canning, the cool weather of early autumn, before danger of frost destroying the crops.

Half a dozen of the best vegetables for dehydrating, and suitable approximate planting dates, to have them ready when wanted, are as follows: Beans (bush varieties), May first and July first; cabbage (plants), April fifteenth and July first; celery, June first, sweet corn, April fifteenth and June fifteenth; spinach, April first and July fifteenth; peppers (plants), June fifteenth.

For canning: Beans (bush), July fifteenth to August first; sweet corn, July first to fifteenth; peas, April first and July first; spinach, April first and August first; tomatoes, June fifteenth to July fifteenth.

Of course the earlier maturing the varieties used the later they can be planted. By keeping these planting dates in mind, it is often possible to slip in a succession or catch crop for canning or dehydrating which would otherwise be overlooked.

NOW, NOW!

Teacher: "Abie, spell avoid."
Abraham: "Tell me foist the void."

AUGUST, 8th Month.

Weeks and Days.	Remarkable Days.	H. w. h.	The Moon. South eve. h. m.	Place & Age	The Moon. sets eve. h. m.	Miscellaneous Particulars.	The Sun slo. m.	The Sun rises. h. m.	The Sun sets. h. m.
Thursday	1 *Lammas Day*	5	3 46	♎ 4	10 5	♂☿☾,♀ sets 9 06 e	6	4 57	7 14
Friday	2 Stephen	6	4 29	♎ 5	10 30	Inf. ♂☿☉,♂♃☾	6	4 58	7 13
Saturday	3 Augustus	6	5 11	♏ 6	10 54	Nor. Cr'n sets 2-3 m	6	4 59	7 12
31]	*7th Sunday after Trinity.*					Day's length 14 hours 11 min.			
Sunday	4 Dominic	7	5 54	♏ 7	11 20	4. Unuk sets 134 m	6	5 00	7 11
Monday	5 Oswald	8	6 38	♏ 8	11 47	Ant. So. 7 30 e	6	5 01	7 10
Tuesday	6 *Tr. of Christ*	9	7 23	♐ 9	morn	Moon in Apogee ☽	6	5 02	7 09
Wednesd	7 Donatus	9	8 11	♐ 10	12 19	Alph'tz So. 3 05m ♉	6	5 03	7 08
Thursday	8 Emilius	10	9 0	♐ 11	12 56	Job's Cof So. 12.15m	6	5 04	7 07
Friday	9 Ericus	11	9 52	♐ 12	1 38	♂♀♂(close), ☾ low. ◡	6	5 05	7 06
Saturday	10 *St. Lawrence*	12	10 43	♐ 13	2 28	Harp So. 9 e	5	5 06	7 04
32]	*8th Sunday after Trinity.*					Day's length 13 hours 56 min.			
Sunday	11 *Dog days end*	1	11 35	♑ 14	3 24	Mars sets 8 48 e	5	5 07	7 03
Monday	12 Clara	1	morn	♑ 15	rises eve.	12. ♑ rises 1-3m	5	5 08	7 02
Tuesday	13 Hildebert	2	12 25	♒ 16	7 58	Corus sets 7–8 e	5	5 08	7 00
Wednesd	14 Eusebius	3	1 14	♒ 17	8 28	Andromeda So. 3–4m	5	5 09	6 59
Thursday	15 *Assn. V. M.*	3	2 2	♓ 18	8 56	Dolphin So. 11 30 e	5	5 10	6 58
Friday	16 Rochus	4	2 49	♓ 19	9 23	♂♀☿, ♓ rises 9-11 e	4	5 11	6 56
Saturday	17 Bertram	5	3 36	♓ 20	9 50	Menkar rises 11 06 e	4	5 12	6 55
33]	*9th Sunday after Trinity.*					Day's length 13 hours 41 min.			
Sunday	18 Agapetus	6	4 24	♈ 21	10 19	☾ ♎ sets 9-11	4	5 13	6 54
Monday	19 *St. Joachim*	7	5 15	♈ 22	10 53	19.De. so.10 40 e	4	5 14	6 52
Tuesday	20 Bernard	7	6 9	♉ 23	11 32	☿Gr. El. W., ♂♂♅	4	5 15	6 51
Wednesd	21 Rebecca	8	7 7	♉ 24	morn	♂♅☾,♃ set 9 04 e ♌	3	5 16	6 50
Thursday	22 Philibert	9	8 7	♋ 25	12 19	☾ in Per., hi. ☾, ◠	3	5 17	6 48
Friday	23 Zacchæus	10	9 8	♋ 26	1 16	☉ enters ♍	3	5 18	6 47
Saturday	24 *St. Barthol.*	11	10 9	♋ 27	2 20	♂♅☾, ♍ set 8-9 e	3	5 19	6 45
34]	*10th Sunday after Trinity.*					Day's length 13 hours 24 min.			
Sunday	25 Ludovicus	12	11 7	♋ 28	3 30	♂☿☾, ♋ so. 12-2m	2	5 20	6 44
Monday	26 Samuel	1	12 0	♍ 0	sets eve.	26. ♋ So. 10–12e	2	5 21	6 42
Tuesday	27 Gebhard	2	ev. 51	♍ 1	7 38	Lyra So. 8 e	2	5 22	6 41
Wednesd	28 *St. Augustin*	3	1 37	♎ 2	8 5	Betelguese So. 1 02 m	1	5 23	6 39
Thursday	29 *St. John beh.*	3	2 22	♎ 3	8 30	♂☿☾,♂♂☾	1	5 24	6 38
Friday	30 Benjamin	4	3 5	♎ 4	8 55	♂♀☾,♂♃☾	1	5 25	6 36
Saturday	31 Paulinus	5	3 48	♏ 5	9 20	♄ rises 2 38 m	1	5 26	6 34

August has 31 Days.

MOON'S PHASES, &c.

First Quarter the 4th, at 3 o'clock 55 minutes in the afternoon; stormy.
Full Moon the 12th, at 5 o'clock 26 minutes in the evening; rainy.
Last Quarter the 19th, at 8 o'clock 17 minutes in the evening; stormy.
New Moon the 26th, at 4 o'clock 7 minutes in the afternoon; unsettled.

FERTILIZING THE LAWN

Summer fertilization of the lawn requires two or three light applications of ready soluble nitrogen fertilizer such as sulphate of ammonia or nitrate of soda, or a complete fertilizer containing from 6 to 10 per cent of nitrogen, if the lawn has not previously been fertilized. Applying fertilizer to the lawn is not a difficult job but it calls for care to prevent possible injury to the grass, a degree of skill to get uniform distribution, and the usual attention to the details of rate, kind and time of application.

Since sulphate of ammonia is a fertilizer commonly recommended, the directions for use may well be given in terms of that material with the understanding that they apply as well for nitrate of soda or the usual high-nitrogen lawn fertilizers.

Apply at the rate of one pound, one pint or two cupfuls, to 250 square feet. This is equivalent to about 150 pounds per acre. Scatter thinly and evenly. Mixing with dry soil, sand, cottonseed meal or similar materials will facilitate even distribution.

Apply when the grass is dry. This is very important unless you can immediately water the lawn thoroughly to completely wash the crystals off the grass. Injury to the grass may result from the rich concentration of soluble nitrogen if the crystals are left on the leaves and dissolved by dew or a light rain, and not washed off onto the soil.

Where a water supply for sprinkling is not available, the fertilizer can be applied just before or during a shower; or apply when grass is thoroughly dry, then mow, rake or otherwise disturb to shake the crystals onto the ground. The sulphate or nitrate may be dissolved in water and sprinkled on if the area is small. The labor involved in this method is considerable for a lawn of any size, since the solution should not be stronger than about one ounce per gallon of water. This is equivalent to one pound in 16 gallons of water for 250 square feet of lawn, and means carrying several barrels of water for a good sized lawn.

FINISHING WOOD

Here is a way of finishing wood that is very beautiful and durable—a method that brings out the grain perfectly—and it is so easily attained that it can be used in the average home.

When the surface of the wood has been thoroughly smoothed with fine sandpaper, apply a coat of paste wood-filler, thinned by turpentine to the consistency of milk. Leave this on ten minutes. Then rub it down thoroughly with a dry cloth, making sure that all the filler has either been rubbed off or else rubbed smoothly into the pores of the wood.

Now apply a thin coat of some hard-surface varnish. Shellac will do as well. As soon as this is thoroughly dry, rub down with steel wool, being careful, however, not to cut through the varnish. The rubbing down is merely to smooth the somewhat sandy surface that varnish has. Now apply a good coat of hard-surface varnish, but not so much that it will run down the vertical surfaces in "waves." This last coat should dry at least a week. It will be glossy, but a little rough and perhaps offensively shiny.

To finish the job, take a flannel cloth and rub down the varnish with a mixture of oil and powdered pumice-stone. It is surprising what a beautiful finish will result. It will be perfectly smooth, hard and gleaming, almost like the celebrated "French finish" that the best cabinetmakers give to choice and expensive pieces of furniture.

MOSQUITOES DISLIKE THESE ODORS

Where mosquitoes abound, a preparation combining one ounce of oil citronella with four ounces of melted vaseline should be rubbed on the face and hands. Persons who object to the odor of citronella could use this: castor-oil one ounce, alcohol one ounce, oil of lavender one ounce. Both preparations were used by workers in the Panama Canal zone and gave great relief until the extermination of mosquitoes was undertaken. Neither preparation should be allowed to get into the eyes.

SEPTEMBER, 9th Month.

Weeks and Days.	Remarkable Days.	H. w. h.	The Moon. South eve. h. m.	Place & Age	sets eve. h. m.	Miscellaneous Particulars	The Sun. fast m.	rises. h. m.	sets. h. m.
35]	*11th Sunday after Trinity.*					Day's length 13 hours 6 min.			
Sunday	1 Ægidius	6	4 32	♋ 6	9 47	♀ sets 8 11 e	0	5 27	6 31
Monday	2 *Labor Day*	7	5 17	♋ 7	10 17	☽ ♋ rises 2–4 m	0	5 28	6 33
Tuesday	3 Hannah	7	6 3	♋ 8	10 51	☽, ☌♀♃, ☾ In Apogee ♌, ☾	0	5 28	6 30
Wednesd	4 Ida	8	6 52	♋ 9	11 32	Aldebaran ri. 10 43 e	1	5 29	6 29
Thursday	5 Nathaniel	9	7 43	♋ 10	morn	Moon lowest ☋	1	5 30	6 28
Friday	6 Magnus	10	8 34	♋ 11	12 18	Pleiades rises 9 e	1	5 31	6 26
Saturday	7 Regina	11	9 26	♋ 12	1 12	Catsor rises 12 16 m	2	5 32	6 24
36]	*12th Sunday after Trinity.*					Day's length 12 hours 49 min.			
Sunday	8 *Nat. V. M.*	11	10 16	♋ 13	2 11	♀ Gr. Elong. E.	2	5 33	6 22
Monday	9 Bruno	12	11 6	♋ 14	3 15	Job's Coffin So. 10 e	2	5 34	6 20
Tuesday	10 Pulcheria	1	11 55	♋ 15	4 21	☽ Eagle So. 8–9 e	3	5 35	6 18
Wednesd	11 Protus	2	morn	♋ 16	rises eve.	11. ♂ sets 7 32 e	3	5 36	6 17
Thursday	12 *Defense Day*	2	12 43	♌ 17	7 25	Hyades set 10 e	3	5 37	6 15
Friday	13 Amatus	3	1 31	♌ 18	7 52	Praesepe rises 2 m	4	5 38	6 14
Saturday	14 *Exalt. Holy* ✝	4	2 20	♌ 19	8 21	Sup, ☌♂☉, □♅☉	4	5 39	6 12
37]	*13th Sunday after Trinity.*					Day's length 12 hours 30 min.			
Sunday	15 Nicetas	5	3 11	♌ 20	8 54	Deneb so. 9 04 e	4	5 40	6 10
Monday	16 Euphemia	6	4 5	♍ 21	9 31	Moon in Perigee ☾	5	5 41	6 09
Tuesday	17 *Consti. Day*	7	5 2	♍ 22	10 16	☽ ☌♅☾, ♎ s't 8-9e ♌	5	5 42	6 07
Wednesd	18 *Ember Day*	7	6 1	♍ 23	11 9	18. ♑ rises 3-5m	6	5 43	6 05
Thursday	19 Siebfried	8	7 2	♍ 24	morn	Moon highest ☊	6	5 44	6 04
Friday	20 *Ember Day*	9	8 2	♑ 25	12 10	☌♄☾, ♑ So. 2–3m	6	5 45	6 02
Saturday	21 *Ember Day*	10	8 59	♑ 26	1 17	♃ sets 7 15 e	7	5 46	6 00
38]	*14th Sunday after Trinity.*					Day's length 12 hours 12 min.			
Sunday	22 *St. Matthew*	11	9 53	♐ 27	2 26	Betel'se rises 11 20 e	7	5 47	5 59
Monday	23 Hoseas	12	10 43	♐ 28	3 36	☉ enters ♎	7	5 48	5 57
Tuesday	24 *St. John con.*	1	11 30	♐ 29	4 44	☽ ☌♂♆, ☌♂♃	8	5 48	5 55
Wednesd	25 Justina	2	ev. 15	♎ 0	sets eve.	25. ☌♂♆☾, ☌♂☾	8	5 49	5 54
Thursday	26 *Heb. N. Yr.*	2	12 59	♎ 1	6 56	Harp sets 3 m	8	5 50	5 52
Friday	27 Cosmus	3	1 42	♋ 2	7 21	☌♃☾, ☌♂☾	9	5 51	5 50
Saturday	28 Wenceslaus	4	2 25	♋ 3	7 46	☌♀☾, ♑ sets 10-12e	9	5 52	5 49
39]	*15th Sunday after Trinity.*					Day's length 11 hours 54 min.			
Sunday	29 GOLD STAR MOTHER'S DAY	4	3 10	♋ 4	8 15	Capella So. 4 42m	9	5 53	5 47
Monday	30 Jerome	5	3 56	♌ 5	8 48	♄ rises 12 55 m	10	5 54	5 45

September has 30 Days.

MOON'S PHASES, &c.

First Quarter the 3rd, at 9 o'clock 49 minutes in the morning; cooler.
Full Moon the 11th, at 4 o'clock 59 minutes in the morning; stormy.
Last Quarter the 18th, at 1 o'clock 44 minutes the morning; fair.
New Moon the 25th, at 3 o'clock 45 minutes in the morning; cooler.

FALL GARDEN WORK

Entirely aside from the money-saving value of a garden is the supply of tip-top quality vegetables for the family table. It has been quite truthfully said that in the case of many vegetables, particularly sweet corn, asparagus, and the like, only those who have raised the crop on their own places, or have been able to have the vegetables served with the lapse of only a comparatively few moments between harvest and the table, have enjoyed the real quality of them. No doubt this is true. If you do not believe it, just try the experiment sometime of serving corn harvested the day before with some corn harvested a quarter of an hour before it is prepared for the table.

Of course, this experiment will have to be made with next season's crop; but the time to get ready for next season's crop is right at the present time. If any place on the farm should be plowed in the fall it certainly is the farm vegetable garden. Fall plowing means that you can get your garden crop planted days ahead of the time for spring planting on spring-plowed land. There may be some exceptions to this in some seasons, but the rule will hold in most seasons. This is a very important point and one that can hardly be urged too strongly. Get the garden ground plowed in the fall, and when you plow it, see that plenty of well-rotted stable manure is turned under.

CLEANING

To clean painted woodwork, use equal parts of kerosene oil and vinegar. No rinsing is necessary, simply wipe off. The odor will soon pass away and you will be surprised at the results.

PURE REASONING

Teacher: "Which is farther away, Mary, England or the moon?"

Mary: "England, teacher."

Teacher: "What makes you think that?"

Mary: "Well, teacher, I can see the moon but I can't see England."

KEEP APPLES COOL IN STORAGE

It might be advised that all fruit in storage be kept cool. However, apples comprise most of the fruit stored on farms, so any suggestions relative to the handling of the stored fruit naturally apply most directly to apples.

Those who have stored apples will do well to sort them over occasionally—particularly if they are in common storage. Where high quality closely graded apples have been put into cold storage, this sorting is usually never necessary unless it does happen to be very late in the season, beyond the usual date to which the variety can be kept.

In common storage the occasional warm spells through winter cause development of rots, and it is the danger from this standpoint that requires the occasional sorting of apples that are in a cave or cellar or in any storage, unless it is cold storage.

TO PRESERVE EGGS

Eggs that are to be preserved for winter use must be fresh, clean, sound and infertile.

A clean five-gallon jug or crock makes a good container. Boil about ten quarts of water and let stand to cool. When water is cold pour it into the jar and add one quart of sodium silicate or water glass. Stir the solution thoroughly. It is now ready for the eggs and fifteen dozen can be placed in the jar, provided the eggs are not of extra large size. The solution should extend about three inches above the eggs.

Place the large ends up to avoid breaking the air cell. Eggs that float when placed in the solution are stale and should not be used. The eggs can all be placed in the solution at once or at different times. Set in a dry, cool place and cover the jar or crock well to prevent evaporation. If evaporation occurs add cold boiled water to the solution and cover again.

JUST BEFORE THE BATTLE

She: "When I married you I thought you were a brave man."

He: "So did everybody else."

OCTOBER, 10th Month.

Weeks and Days	Remarkable Days	H. w. h.	The Moon. South eve. h. m.	Place & Age	sets eve. h. m.	Miscellaneous Particulars	The Sun. fast m.	rises h. m	sets h. m.
Tuesday	1 Remigius	6	4 44	♋ 6	9 25	♂Ψ⊙,☾ in Apo.♉,☽	10	5 55	5 44
Wednesd	2 Vollradus	7	5 34	♌ 7	10 9	☽ ☿ sets 7 07 e	10	5 56	5 42
Thursday	3 Jairus	7	6 24	♌ 8	10 59	3. Moon low ☾	11	5 57	5 41
Friday	4 Franciscus	8	7 15	♌ 9	11 56	El Nath so. 4 25 m	11	5 58	5 39
Saturday	5 Placidus	9	8 6	♌ 10	morn	Algol so. 2 08 m	11	5 59	5 37
40]	*16th Sunday after Trinity.*					Day's length 11 hours 36 min.			
Sunday	6 Fides	10	8 56	♌ 11	12 57	♒ So, 11 e–1 m	12	6 00	5 36
Monday	7 Amelia	11	9 45	♒ 12	2 2	Capella so. 4 10 m	12	6 01	5 34
Tuesday	8 Pelagius	12	10 33	♒ 13	3 9	Mirach so. 11 58 e	12	6 02	5 33
Wednesd	9 Dionysius	1	11 21	♌ 14	4 18	☽ ♌So. 10–11 e	12	6 03	5 31
Thursday	10 Gideon	1	morn	♌ 15	rises eve.	10. ☌☿♃	13	6 04	5 30
Friday	11 Burkhard	2	12 11	♍ 16	6 21	Mars sets 6 25 e	13	6 05	5 28
Saturday	12 *Columb. Day*	3	1 3	♍ 17	6 52	Scheat so. 9 39 e	13	6 06	5 26
41]	*17th Sunday after Trinity.*					Day's length 11 hours 18 min.			
Sunday	13 Coloman	4	1 57	♎ 18	7 28	☾in Perigee,☿brig't.☾	13	6 07	5 25
Monday	14 Calixtus	4	2 54	♎ 19	8 11	Orion rises 10 e ♊	14	6 08	5 23
Tuesday	15 Hedwig	5	3 55	♏ 20	9 3	☌♅☾, ♏sets 9–11 e	14	6 10	5 22
Wednesd	16 *Gallus*	6	4 56	♏ 21	10 2	☽ Moon highest ♈	14	6 11	5 20
Thursday	17 Florentina	7	5 57	♏ 22	11 8	17. ♐So. 6–8 e	14	6 12	5 19
Friday	18 *St. Luke ev.*	8	6 55	♐ 23	morn	☌♄☾Hyades so. 3m	15	6 13	5 17
Saturday	19 Ptolemy	9	7 49	♐ 24	12 17	Algenib so. 10 19 e	15	6 14	5 16
42]	*18th Sunday after Trinity.*					Day's length 10 hours 59 min.			
Sunday	20 Felicianus	10	8 40	♑ 25	1 26	☌☿♂, Mira so. 12 20 m	15	6 15	5 14
Monday	21 Ursula	11	9 27	♑ 26	2 34	♄ rises 11 41 e	15	6 16	5 13
Tuesday	22 Cordula	12	10 11	♐ 27	3 39	☌ΨC, Swan sets 2-4m	15	6 17	5 12
Wednesd	23 Severinus	1	10 55	♐ 28	4 42	☽ ⊙ enters ♋	15	6 18	5 10
Thursday	24 Salome	1	11 37	♋ 0	sets eve.	24. V'a sts 1 20m	16	6 19	5 09
Friday	25 Crispin	2	ev, 20	♋ 1	5 48	☌♃☾, ♌ so. 9–11 e	16	6 20	5 08
Saturday	26 Amandus	3	1 5	♋ 2	6 15	☌♂☾,☌☿ ☾	16	6 21	5 06
43]	*19th Sunday after Trinity.*					Day's length 10 hours 43 min.			
Sunday	27 *Christ, the King*	3	1 50	♋ 3	6 46	☌♀☾, ♍ rises 11 e	16	6 22	5 05
Monday	28 *Simon Jud.*	4	2 38	♋ 4	7 22	Deneb sets 5 11 m♉	16	6 24	5 04
Tuesday	29 *Zwinglius*	5	3 27	♌ 2	8 3	Moon in Apogee ☽	16	6 25	5 02
Wednesd	30 Serapion	5	4 17	♌ 6	8 50	Moon lowest ☾	16	6 26	5 01
Thursday	31 *HALLOWE'EN REFORMATION*	6	5 7	♌ 7	9 44	☌♃⊙,☌☿♀,☿ Gr. El. E.	16	6 27	5 00

October has 31 Days.

MOON'S PHASES, &c.

First Quarter the 3rd, at 4 o'clock 53 minutes in the morning; warmer.
Full Moon the 10th, at 3 o'clock 40 minutes in the afternoon; fair.
Last Quarter the 17th, at 8 o'clock 28 minutes in the morning; unsettled.
New Moon the 24th, at 6 o'clock 32 minutes in the evening; stormy.

STEEL POSTS

The old worm fence and the post and rail fence have entirely disappeared; wire has replaced them, but now the farmer is confronted by the problem of finding suitable posts to hold the wire. The problem is easily solved. Metal wire has replaced rails, metal posts must replace the wood posts.

Some 22 years ago 100 rods of fencing were put up on a farm, using iron posts which had been painted. The posts were simply made of piping which had been cut to length. The only expense which this fence has been was the replacing of the wire once, which was done eight years ago; the posts are as solid today as they were 22 years ago, and have not been affected to any extent by rust.

Since building that first 100 rods nothing but steel posts have been used. They are cheaper than wood because they last a lifetime and wire fence cannot become detached from them.

Several different shapes have been tried, but a galvanized post in the shape of a U with a notched ridge on the face for holding the wire is the most satisfactory. On uneven ground they may be set and anchored with stone, but on level ground they are so made that they may be driven. This makes the cost of erecting a fence less than for wood posts, as wood posts have to be set and thoroughly tamped in order to withstand any strain against a fence.

TO KILL POISON IVY

Ten pounds scattered over a square rod should prove effective in acid soils. In a limestone soil it may require 15 pounds of the material over the same area. Borax will also kill most other kinds of shallow-rooted, woody plants, but not all of them.

The difference between impudence and repartee often depends upon the size of the man who utters it.

STORAGE PLANS FOR WINTER FOOD

Vegetables which may be stored during the winter for home use include beets, cabbage, carrots, celery, horse-radish, leeks, onions, potatoes, parsnips, rutabagas, turnips, sweet potatoes, pumpkins and squash. In the storing of these crops general principles must be considered:

They should not be immature or too old. Handle every specimen with care. Decay usually starts with bruises. Tender vegetables exposed to frost before they reach storage will not keep well. Hardy vegetables such as beets, cabbage, turnips and celery may not keep well when exposed to freezing before stored.

A fairly constant temperature with plenty of ventilation is essential for all vegetables. Some require a moist, cool temperature, while others require a dry atmosphere and a higher temperature. All vegetables should not be stored in the same place. Keep the storage as dark as possible.

Beets, carrots, parsnips, turnips, cabbage, potatoes, may be stored with safety in the outdoor pit. Sometimes barrels are sunk into the ground either in the horizontal or perpendicular position and cover provided for frost protection. Barrels are especially advisable where vermin are likely to be present. The outdoor pit is constructed by digging a narrow trench about eighteen inches deep on a well-drained location. This pit is lined with straw or burlap and the root crops or cabbage packed into it in pyramid form. They are covered with straw, hay or burlap and covered with a few inches of soil. As the weather becomes colder, other layers of straw and soil are added. Some form of ventilation must always be provided.

It does not cost much to make a cool cellar in one corner of the basement. Upright two by fours covered with insulated building material are ideal. An outside cellar window is important both for temperature and ventilation. All of the root crops and cabbage may be stored in cool cellars, while pumpkins, sweet potatoes, squash should be stored near the furnace where it is warm.

NOVEMBER, 11th Month.

Weeks and Days.	Remarkable Days.	H. w. h.	The Moon. South eve. h. m.	Place & Age	sets eve. h. m.	Miscellaneous Particulars.	The Sun. fast m.	rises. h. m.	sets. h. m.
Friday	1 *All Saints*	7	5 57	♑ 8	10 42	1.□♄☉,♀s's5 35e	16	6 28	4 59
Saturday	2 *All Souls*	8	6 46	♑ 9	11 45	♋ rises 10-12 e	16	6 29	4 58

44] *20th Sunday after Trinity.* Day's length 10 hours 29 min.

Sunday	3 Hubert	9	7 34	♒ 10	morn	Mereors 3rd-15th	16	6 30	4 56
Monday	4 Charlotte	10	8 21	♒ 11	12 49	Fomalhaut So. 7 56 e	16	6 32	4 55
Tuesday	5 *Gen. Electin*	10	9 9	♒ 12	1 56	Pleiades So. 1 Mo.	16	6 33	4 54
Wednesd	6 Malachi	11	9 57	♓ 13	3 4	☌♀♂.♓so. 1–3 M	16	6 34	4 53
Thursday	7 Engelbert	12	10 48	♓ 14	4 15	Capello so. 2 08 m	16	6 35	4 52
Friday	8 Godfrey	1	11 41	♓ 15	5 28	Sirins so. 3 34 m	16	6 36	4 51
Saturday	9 Theodore	2	morn	♓ 16	rises eve.	9.♓ so. 11–12 e	16	6 37	4 50

45] *21st Sunday after Trinity.* Day's length 10 hours 11 min.

Sunday	10 *Mart. Luther*	2	12 39	♓ 17	6 3	Moon in Perigee ♌,☾	16	6 38	4 49
Monday	11 *ARMISTICE DAY MELANCHTHON*	3	1 40	♓ 18	6 52	☌♅☾,☌sets 5 29 m	16	6 40	4 48
Tuesday	12 Jonas	4	2 44	♈ 19	7 50	Moonhighest ♒	16	6 41	4 47
Wednesd	13 Winebert	5	3 47	♈ 20	8 56	Algenib so. 8 41 e	16	6 42	4 46
Thursday	14 Levinus	6	4 49	♉ 21	10 7	☌♄☾,☌♅☌	16	6 43	4 45
Friday	15 Leopold	7	5 45	♉ 22	11 18	15.♒so. 9-10 e	15	6 44	4 44
Saturday	16 Ottomar	7	6 38	♊ 23	morn	Mirach so. 9 25 e	15	6 45	4 44

46] *22nd Sunday after Trinity.* Day's length 9 hours 56 min.

Sunday	17 Alpheus	9	7 26	♊ 24	12 26	Inf.☌♀☉,♓rises 7-8e	15	6 47	4 43
Monday	18 Gelasius	10	8 11	♋ 25	1 31	Whale So. 9-10 e	15	6 48	4 42
Tuesday	19 *Elizabeth*	11	8 54	♋ 26	2 35	☌♆☾,Algol so. 11 09e	15	6 49	4 42
Wednesd	20 Amos	11	9 36	♋ 27	3 37	♃rises 5 34 m	15	6 50	4 41
Thursday	21 *Off. V. Mary*	12	10 18	♌ 28	4 38	Inf. ☌♅☉,☌♃☾	14	6 51	4 40
Friday	22 Alphonsus	1	11 1	♌ 29	5 39	☌♀☽,☉ enters ♑	14	6 52	4 40
Saturday	23 Clement	1	11 46	♑ 0	sets eve.	23☌♅☾, Eclipse☉	14	6 53	4 39

47] *23rd Sunday after Trinity* Day's length 9 hours 44 min.

Sunday	24 Chrisogenus	2	ev. 33	♑ 1	5 21	☌♅☾,♓sets 9-10 e♉	14	6 54	4 38
Monday	25 Catherine	3	1 22	♑ 2	6 0	Moon in Apogee ☽	13	6 55	4 38
Tuesday	26 Conrad	3	2 11	♐ 3	6 45	Moon lowest ☾	13	6 56	4 38
Wednesd	27 Jehosaphat	4	3 2	♐ 4	7 36	Aldebaran so. 12 07 m	13	6 58	4 37
Thursday	28 *Thanks Day*	5	3 51	♑ 5	8 33	Great C. set 12–2 m	12	6 59	4 37
Friday	29 Saturn	6	4 40	♑ 6	9 33	Sq. of Peg. so. 6-7 e	12	7 00	4 36
Saturday	30 St, Andrew	7	5 27	♑ 7	10 35	♄ rises 9 06 e	12	7 01	4 36

November has 30 Days.

MOON'S PHASES, &c.

First Quarter the 1st, at 11 o'clock 40 minutes in the evening; unsettled.
Full Moon the 9th, at 2 o'clock 10 minutes in the morning; rainy.
Last Quarter the 15th, at 5 o'clock 35 minutes in the evening; fair.
New Moon the 23rd, at 12 o'clock 24 minutes in the afternoon; colder.

STARTING TRACTOR IN WINTER

Less back-work and more head-work is the best policy when the tractor is hard to start on a cold morning. In very cold weather it is good practise to drain the lubricating-oil immediately after using tractor. Then in the morning, when you are going to use the tractor, put this oil and some kettles of water on back of stove so they will be good and warm when needed.

Putting in warm oil helps a lot in freeing drag on motor bearings, and besides, will insure you against the danger of ice and congealed oil forming in the oil sump, causing a failure in the lubricating system and possibly burned-out bearings and scored cylinders. When you pour hot water into the cooling system, it carries a vast amount of heat direct to the cylinder walls and combustion chamber, where it is most needed in loosening up the thick oil around the pistons and vaporizing the cold fuel mixture. Boiling water poured rapidly into a frosty motor may crack the cylinder head, so discretion should be used.

Heat applied to the intake manifold helps tremendously in the vaporizing of the fuel, but flames should be kept away from the carburetor bowl. Of course, high-test gas should be used to fill starting tank and priming cups.

A hot spark is important, so see that the circuit-breaker and spark-plug points are kept clean and smooth, and the gap adjusted to the proper distance. If all these suggestions are followed, a tractor motor in good condition should start easily on the coldest mornings.

GREASE, OIL OR TAR

Rub washable materials with lard or kerosene, then launder in hot, soapy water. Fixed fabrics should be sponged with carbon tetrachloride. If fabric is heavily saturated with grease or oil, first pour on cleaning fluid and soak up with blotter, then sponge.

CARE OF SPARK-PLUGS

To clean spark-plugs at regular intervals is an excellent practise, provided the cleaning is done properly. The porcelain part of a plug should never be touched with an abrasive cloth, sandpaper, file, knife, wire brush or anything likely to remove or cut into its glazed surface.

Once the glazed surface is scratched or marred, carbon and other impurities easily adhere to it. Its roughened surface quickly collects a coating that reduces or destroys the insulating properties of the porcelain, and thus the very purpose of the cleaning is defeated.

The porcelain parts should be gently cleaned with a soft rag saturated with kerosene. Soaking badly carboned plugs in kerosene or gasoline will aid the cleaning process. An abrasive cloth or a knife can be used to clean the metal parts. On reassembling the plug, it is a good plan to replace the old worn gaskets with new ones, as the old ones may leak, and leaky plugs can not function properly. Also, be sure points are properly adjusted when plug is put together.

TRACTOR LUBRICATION IN COLD WEATHER

The proper lubrication of a tractor from November on through the winter is a different problem from summer lubrication. The cylinder oil you have been using is probably too heavy for winter, and its use will not only result in difficult cranking, but cylinders may be scored and bearings burned out, due to the inability of the thick oil to pass through the screen to the pump, or of the pump to force oil through the small oil leads. Even when using a lighter oil, it is advisable to warm up the motor for a few minutes before applying the load. Crank-case dilution is much greater in winter, due to more choking in starting and a cooler-running motor, and therefore it is advisable to drain and refill with fresh oil twice as often as in summer. The oil in the gear case should also be changed to a lighter grade, as the oil used in summer will not flow at low temperatures and bearing and gears will run dry although surrounded by plenty of the congealed lubricant.

DECEMBER, 12th Month.

Weeks and Days.	Remarkable Days.	H. w. h.	The Moon. South eve, h. m.	Place & Age	sets eve. h. m.	Miscellaneous Particulars.	The Sun. fast m.	rises h. m.	sets h. m.
48]	*1st Sunday in Advent.*					Day's length 9 hours 34 min.			
Sunday	1 Longinus	7	6 13	♒ 8	11 39	1.☿ rises 5 24 m	11	7 02	4 36
Monday	2 Candidus	8	6 59	♒ 9	morn	♎ rises 5-6 m	11	7 03	4 35
Tuesday	3 Fr. Xavier	9	7 45	♓ 10	12 45	Algenib so. 7 22 e	10	7 04	4 35
Wednesd	4 Barbara	10	8 33	♓ 11	1 51	Rigel so. 12 19 m	10	7 05	4 35
Thursday	5 Abigail	11	9 24	♓ 12	3 1	Mira so. 9 19 e	10	7 06	4 35
Friday	6 *St. Nicholas*	12	10 18	♓ 13	4 14	♐ so. 9-11 e	9	7 07	4 35
Saturday	7 Ambrose	1	11 18	♓ 14	5 31	Sirius so. 1 40 m	9	7 08	4 35
49]	*2nd Sunday in Advent.*					Day's length 9 hours 26 min.			
Sunday	8 *Conc. V. M.*	1	morn	♓ 15	rises eve.	8.☾inP.♂☿☾☾,♌	8	7 09	4 35
Monday	9 Joachim	2	12 22	♈ 16	5 31	☿Gr. Elon. W,	8	7 10	4 35
Tuesday	10 Judith	3	1 28	♈ 17	6 36	Moon highest ◠	8	7 10	4 35
Wednesd	11 Barsabas	4	2 33	♉ 18	7 48	♂♄☾,♂ sets 4 54 e	7	7 11	4 35
Thursday	12 Ottilia	5	3 34	♉ 19	9 2	♌☿☉, ♋ sets 5-7 e	7	7 12	4 35
Friday	13 Lucy	6	4 31	♊ 20	10 14	Castor so. 2 02 m	6	7 13	4 35
Saturday	14 Nicasius	7	5 22	♊ 21	11 22	Hyades so. 11 e	6	7 14	4 35
50]	*3rd Sunday in Advent.*					Day's length 9 hours 22 min.			
Sunday	15 Ignatius	7	6 9	♊ 22	morn	15. Her.sets7-8 e	5	7 14	4 36
Monday	16 Ananias	8	6 53	♋ 23	12 28	♂♆☾, ♋ so. 1-2m	5	7 15	4 36
Tuesday	17 Lazarus	9	7 35	♋ 24	1 30	Pleiades so, 10 s	4	7 16	4 36
Wednesd	18 *Ember Day*	10	8 17	♌ 25	2 31	Goat sets 8-9 e	4	7 16	4 36
Thursday	19 Abraham	11	9 0	♌ 26	3 32	♂♃☾,♂☿☾	3	7 17	4 37
Friday	20 *Ember Day*	12	9 44	♌ 27	4 38	J. Coffin sets 10 e	3	7 17	4 37
Saturday	21 *Ember Day*	12	10 30	♌ 28	5 33	♂☿☾,♃rises 4 05 m ♉	2	7 18	4 38
51]	*4th Sunday in Advent*					Day's length 9 hours 20 min.			
Sunday	22 Beata	1	11 18	♌ 29	6 33	☾in Ap,☉en ♐☾	2	7 18	4 38
Monday	23 Dagobert	2	ev. 7	♍ 0	sets eve.	53.♂♂☾ V. bright	1	7 19	4 39
Tuesday	24 Adam, Eve	2	12 58	♍ 1	5 31	Moon lowest ◡	1	7 20	4 39
Wednesd	25 *Christmas*	3	1 48	♎ 2	6 26	Aldebaran so. 10 13e	0	7 20	4 40
Thursday	26 Stephen	4	2 37	♎ 3	7 26	Orion so. 11 e	slow	7 20	4 40
Friday	27 *John, Evang.*	4	3 24	♎ 4	8 28	Betelguese so. 11 29e		7 21	4 41
Saturday	28 H. Innocents	5	4 10	♏ 5	9 30	Capella so. 10 48 e	1	7 21	4 42
52]	*1st Sunday after Christmas*					Day's length 9 hours 21 min.			
Sunday	29 Noah	6	4 55	♏ 6	10 34	Auriga so. 11 e	2	7 21	4 42
Monday	30 David	7	5 39	♐ 7	11 38	Proc. so. 1 01 m	2	7 22	4 43
Tuesday	31 *N. Year's E.*	7	6 25	♐ 8	morn	31.♄ rises 6 58 e	3	7 22	4 44

December has 31 Days.

MOON'S PHASES, &c.

First Quarter the 1st, at 4 o'clock 47 minutes in the afternoon; fair.
Full Moon the 8th, at 12 o'clock 52 minutes in the afternoon; stormy.
Last Quarter the 15th, at 5 o'clock 57 minutes in the morning; fair.
New Moon the 23rd, at 8 o'clock 6 minutes in the morning; cooler.
First Quarter the 31st, at 7 o'clock 23 minutes in the morning; stormy.

LIGHT FOR HEALTH

The main purpose of the use of lights in the laying house in the fall and winter is to get a greater egg production. This end is gained, of course, because the birds have an opportunity to eat more feed, which results in more eggs being laid. There is another phase in the use of lights that is not always considered by poultry keepers, but is of great importance. This is the use of lights to maintain health and to keep the birds in good condition. The value of lights lies in the extra amount of feed that is consumed.

Poultry keepers know that pullets are often subject to colds, roup, and canker in the late fall and early winter. They know further that if these pullets are kept in the best of condition as to flesh the chances of their getting these troubles are greatly minimized. The use of lights with the increased opportunity to get more feed will help birds to ward off such troubles.

It frequently happens that the new pullets do not come along as well as they should after they have been placed in the laying house. Lights will help these birds not only to develop but also to keep in good condition. Lights, when used so that the birds have no more than 12 or 13 hours of light, including both the natural daylight and the extra light, will also often help to prevent a molt. Birds that molt late in the season are likely to contract colds and to be at a disadvantage for the rest of the season.

Lights have considerable value in addition to increasing the number of eggs in a flock.

LURING MUSKRAT, COON AND POSSUM

During cold weather, muskrats do not move about freely, but they do have feeding grounds. Usually these are in deep water. Cabbage leaves —almost anything green—seem to arouse the curiosity of these furbearers and cause them to

come in great numbers. Places where springs abound, or drains empty, frequently are free from ice. Bait such places with vegetables—almost any kind will do. Even the bough of an evergreen tree will serve occasionally.

Pieces of smoked fish, sardines in oil—these draw the raccoon and opossum well. Small bits scattered along a stream help keep the animals active. Almost any kind of refuse from butchering can be used for skunk and civet-cat. Dragging it through the territory—near dens of these animals—causes them to hunt the decoy.

The one thing to guard against is furnishing too much food. If there is flesh scattered all over the territory, the game is likely to become fed up. Frequently this happens when carcasses of muskrat, for instance, are left along the water for mink, raccoon and other animals to feed upon. Then the furbearers lose interest in the baited spots where sets have been made. While decoys such as have been described should be employed frequently, there never should be such a quantity that the attractors lose their power to draw. When such a condition occurs, a remedy must be sought if catches are to continue. One aid, no doubt, is a good commercial lure—and the best that can be bought is the cheapest to employ.

ACID-RESISTING CEMENT

A recent issue of the Brass World gives the following formula for an acid-resisting cement, for tanks, floors, etc.: Silicate of soda (water glass), 6 parts; glycerine, 1 part; red lead, 3½ parts; fine cinders, 10 parts. The silicate of soda and glycerine are mixed and then the red lead and cinders added to make a mass resembling putty. This cement soon sets or hardens, and, when heated to the temperature of boiling water, unites with brick or Portland cement to form a strong joint.

—Weddings are affairs of matrimony and too often, also, a matter-o'-money.

Vegetable Planting Table.

VEGETABLES	AMOUNTS REQUIRED FOR 100 FEET OF ROW		DISTANCE APART ROWS		Distance Between Plants in Row	TIME TO SOW OR PLANT IN OPEN
	Seed	Plants	Cultivation (Horse) Feet	Cultivation (Hand) Feet	Inches	
Artichoke, Globe	½ oz	50	3 to 4	3	24 to 36	Spring
Artichoke, Jerusalem	——	4 lbs tubers	3	2 to 3	18	Spring
Asparagus, Seed	1 oz	——	2½ to 3	1 to 2	——	Spring
Asparagus, Plants	——	60 to 75	3 to 5	2	18	Spring
Bean, Bush	1 lb	——	2⅛ to 3	1½ to 2	4	April to August
Bean, Pole	½ lb	——	3	3	——	May & June
Bean, Lima	1 lb	——	3	1½ to 2	6	May & June
Beet	2 oz	——	2 to 3	1 to 1½	2 to 5	March to August
Brussels Sprouts*	1 pkt	75	2½ to 3	2	18	April to July
Cabbage*	1 pkt	65 to 90	2½ to 3	2	12 to 18	April to July
Carrot	1 oz	——	2½ to 3	1½	3 to 5	March to July
Cauliflower*	1 pkt	75	2½ to 3	2	18	April to July
Celery*	1 pkt	200 to 250	3 to 4	1½ to 4	4 to 6	May to August
Chicory	½ oz	——	2½ to 3	1½	3 to 4	May & June
Corn Salad	2 oz		2½	1	3	August & Sept.
Corn, Sweet	½ lb	——	3	2½ to 3	6 to 9	May to July
Cucumber	½ oz	——	4 to 6	4 to 6	48	May to July
Eggplant*	1 pkt	50 to 75	3	2 to 2½	18 to 24	May & June
Endive	1 oz	100	2½ to 3	1½	9 to 12	April to July
Kale*	1 pkt	75	2½ to 3	1½ to 2	18	April to July
Kohl-Rabi	½ oz	——	2½	1½	6	April to July
Leek	½ oz	——	2½	1¼ to 1½	6	March to May
Lettuce	½ oz	150	2½	1 to 1½	9 to 12	March to Sept.
Melon, Musk	⅝ oz	——	6 to 8	6	——	May & June
Melon, Water	1 oz	——	8	8	——	May & June
Mustard	1 oz	——	2½	1 to 1½	4 to 6	March to Sept.
Okra	2 oz	75 to 100	3 to 4	2 to 3	24	May & June
Onion, Seed	1 oz	——	2½	1 to 2	3 to 5	March to May
Onion, Sets	1 qt	——	2½	1	2 to 4	February to April
Parsley	½ oz	——	2 to 3	1 to 1½	6	Spring
Parsnip	½ oz	——	2½ to 3	1½ to 2	3 to 6	March to May
Peas	1 to 2 lbs	——	3 to 4	2½ to 4	——	March to May
Pepper*	1 pkt	75	3	1½ to 2	——	May & June
Potato, White	5 lbs	——	3	2 to 3	15 to 18	March to June
Potato, Sweet	3 lbs	75	3 to 5	3 to 5	18	May & June
Pumpkin	½ oz	——	8 to 12	8	——	May & June
Radish	1 oz	——	2	1	1	March to Sept.
Rhubarb	½ oz	33	3	3	36	Spring
Rutabaga	½ oz	——	2½ to 3	1½ to 2	6 to 8	June & July
Salsify	1 oz	——	2½ to 3	1½	3	Spring
Spinach	1 oz	——	2½	1	3	Aug. to Nov.
Spinach, New Zealand	1 oz	——	3	2	12	April & May
Squash, Bush	½ oz	——	3 to 4	3 to 4	——	May & June
Squash, Winter	½ oz	——	6 to 10	6	——	May & June
Swiss Chard	½ oz	——	3	1½ to 2	12	March to June
Tomato*	1 pkt	33 to 50	4	3	24 to 36	May & June
Turnip	½ oz	——	2 to 3	1½ to 2	6	July & August
Vegetable Marrow	½ oz	——	8	6	——	May & June

(*) To be started in hotbed. The celery for early crop only.

THE GARDEN SIGNS.

The days of each month in which the moon sign coincides with the sun sign, the influence of the sign is supposed to be greatly intensified. The first day the moon in a sign is better than the second, and the second better than the third. Those who know the importance of these laws are ready to plant at the proper time, knowing that seeds planted in a barren sign, a scanty crop will follow; if planted in a fruitful sign, a full crop will follow. The time to plant the garden is when the earth is in a good sign, and the day to plant is when the moon is in the sign. The time to harvest is when the sign is right.

Aries — Ram, Head—A movable fire sign governed by the sun; seeds if planted in this sign produce vines or stalks.

All crops that produce their yield above the surface of the ground should be planted in the new or increase light of the moon to grow vigorously. For best yield grain should be planted in the dark of the moon.

Taurus — Bull, Neck — Fixed earthly sign governed by Mercury; will do good for all root crops of quick growth.

All root crops that produce their yield in the ground should be planted in the old or decrease light of the moon to produce a good yield.

Gemini—Heavenly Twins—Arms — Barren sign; good sign to plant melon seeds. A good sign to stir the soil to subdue all noxious weeds. Plants that produce their yield above the ground may be planted in any sign of the upper part of the body.

Cancer — Crab Fish, Breast — A watery, fruitful, movable sign; germinate quickly. It is favorable to growth and insures an abundant yield. If it comes at full of the moon it is a good time to plant beans; if at time of new moon, lentils. Best time to sow peas if the day follows the new moon, as they will grow quickly, have abundant flowers and yield; peas, if sown immediately after the second quarter, will bear but little; if sown a day or two after the full moon will bloom and fruit in abundance, but no yield; if sown a day or two after the full moon is out they will little more than break through the ground.

If this sign comes just before the full of the moon it is a good time to plant or prune fruit trees. Cancer is a good earth sign to prune grape vines.

Leo—Lion, Heart—A barren fiery sign; is only favorable to the destruction of noxious growth. Weeds, briars and bushes cut off in the old of the moon in August when its place is in Leo (sign of the lion) will be more certainly destroyed than if done at any other time.

The timber cut in the old of the moon in August will not be eaten by worms nor snap in burning, and will last much longer than if cut at any other time.

Virgo—Virgin, Bowels—A barren sign; the bloom of flower girl, makes many and beautiful flowers, but unfavorable to the growth of seed or transplanting.

Libra — Balance-Scales, Reins — A strong movable sign. Seeds planted at this time produce vigorous pulp growth and roots and a reasonable amount of grain.

Scorpion — Secret, Loins — A fruitful sign producing watery effects. A good sign to plant corn.

Sagittarius — Archer, Bowman, the Thighs —Fiery masculine sign. Will not do well as it is not a very favorable time to plant or transplant. If the moon is dark or on the wane, radishes or potatoes may be planted, as root crops are said to do well if planted in signs of lower part of the body.

Capricorn — Goat, Knees — A moist, movable sign, produces rapid growth of pulp stalk or roots, but not much grain.

Aquarius—Waterman, Legs—Airy masculine sign. Seed does not grow well. Do not plant seed as it will rot, and is only thrown away.

Pisces — Fish, Feet — A watery feminine sign; will produce excellent results and is one of the best signs for producing the fruit of the earth. Being a watery sign assists vegetation to withstand a drouth. This is an especially good sign if the moon is dark or on the wane. This is a good sign to make sourkraut.

Fish bite best during the signs of the Fish, Crab, or Scorpion. Fish at night in light of moon, but not in daytime. Fish in daytime in dark of moon, as fish cannot see in dark of moon and are hungrier in daytime.

The hair should be cut on the increase of the moon if you want a thick head of hair; on the decrease if the reverse.

The same applies to sheep; if you shear sheep in the increase of the moon their wool will grow again better and stronger.

Agricultural Almanac.

WEATHER FORECASTS FOR 1946

Probable State of the Weather.

JAN.

1–3 Storm period. Blizzards on the western plains will damage stock and cause much suffering. Wind storms in the lower Mississippi valley.

4–7 Fair weather. Clearing skies and colder in the north Atlantic states. Heavy frosts in the southeast. Snow flurries in the northern Rockies.

8–11 Local storms. Generally fair and warmer in the Great Lakes section, with scattered snowfalls. Rain storms along the California coast.

12–15 Danger period. Severe gales along the New England coast, while inland in the northeastern states furious snow storms may be expected. Rains along the Gulf of Mexico.

16–19 Cold wave. Fair weather in most areas as temperatures fall. Strong winds will bring the cold south to the citrus areas of California, Texas and Florida. Warmer on the 19th.

20–23 Unsettled spell. Blustery and unpleasant in the Missouri River valley, as a low pressure area develops to the northwest. Scattered rains in Oregon and Washington. Dry and cool on the southern plains.

24–27 Changeable period. Fair at first and colder in the Alleghany Mountain region and the Ohio River valley. Wind storms will develop on Saturday as dangerous storms spread over the northwestern states. Heavy fogs along the outh Atlantic coast.

28–31 Storm period. A violent storm area will move eastward across the country, bringing heavy snows in the north and rains in the south. Highways will be blocked in many sections. Gales along the Pacific coast will delay shipping and damage coastal property.

Precipitation normal for the month, temperatures below the average.

Probable State of the Weather.

FEB.

1–3 Storm period. Severe gales will lash the Atlantic coast from Cape Hatteras to the Canadian border. On the northern plains blizzards will cause great snow drifts. Fair and sunny in California.

4–7 Unsettled period. Continued stormy in most sections. Strong winds in the Great Lakes area will make conditions most disagreeable. Colder on the 7th in the Missouri River valley.

8–11 Changeable spell. Fair at first, followed by clouding skies and rising temperatures. Severe storms in the upper Mississippi valley the first of the week, accompanied by strong winds and blinding snowfalls.

12–15 Cold wave. Clearing skies and much colder. Freezing winds will sweep deep into the south, where killing frosts will endanger citrus trees and truck crops.

16–19 Local storms. Unsettled and rainy in the lower Mississippi valley, with blustery squalls at many points. Snow flurries on the central plateau. Fogs along the Gulf coast.

20–23 Fair weather. Clear and cooler in the New England states and the St. Lawrence River valley. Delightful in the southwest, where days will be sunny and nights cool. Warmer the last of the week.

24–28 Storm period. Rain in the southeastern states and blustery. Gales along the coast of Oregon and Washington. Snow storms in the Ohio River valley and Great Lakes area.

Precipitation and temperatures will be average this month.

Probable State of the Weather.

MARCH

1–3 Windy weather. Blustery squalls in some sections, although conditions in general will be fair with lower temperatures. Occasional snow flurries in the Appalachian mountains.

4–7 Local storms. Scattered rains and snows on the western plains will bring needed precipitation to that area. Brisk showers in California.

8–11 Storm period. Severe storms in the upper Mississippi valley and along the Missouri River will cause heavy snowfall. Rain storms in the lower Atlantic states.

12–15 Cold wave. Fair and much colder in the Great Lakes area and Ohio River valley. Chilling winds in New England with occasional snow flurries.

16–19 Unsettled spell. Threatening conditions on Saturday and Sunday will be followed by sudden, swift storms in many sections. Rain storms in the Gulf states. Dense fogs along the Pacific coast.

20–23 Variable weather. Squally at some points, pleasant elsewhere. Local rains in the Ozarks and snow flurries in the northern Rockies.

24–27 Stormy period. Heavy rains in the lower Mississippi valley up to mid-week, when skies will clear. Scattered snow storms on the northern plains.

28–31 Changeable spell. Fair at first, becoming unsettled and blustery on the 30th in the northwestern states. Pleasant in the southeast, with scattered showers.

Precipitation for the month above normal, temperatures average.

Probable State of the Weather.

APRIL

1–3 Fair weather. Pleasant in most sections on the 1st and 2nd, with threatening conditions developing in the Missouri River valley on the 3rd. Showers in Oregon and Washington.

4–7 Danger period. A severe storm area will spread east and south over the country, bringing heavy rains and strong winds. Floods may be expected in the Mississippi and Ohio River Valleys.

8–11 Fair spell. Clearing skies on the 8th in the western states, and further east a day or two later. Fine planting weather in the south.

12–15 Local storms. Scattered rains in the Great Lakes area and eastward to New England. Much warmer in the southwest.

16–19 Changeable period. Fair at first, becoming overcast and unsettled on the western plains on the 18th. Blustery squalls in California, with scattered showers.

20–23 Stormy weather. Rain storms in the eastern states will delay spring plowing. Along the Gulf of Mexico violent squalls will hit many sections.

24–27 Pleasant spell. Clear and cool up to the 26th, when local storms will appear in the northwestern states. Warmer in the lower Mississippi valley with scattered thunder storms.

28–30 Disagreeable period. Overcast and chilly in the northeastern states with frequent showers. Wind storms on the upper Pacific coast will delay shipping. Rains in the southeast.

Precipitation average for the month, temperatures below normal.

Slippery Rugs may cause bad accidents. A non-skid underlay will stop slipping, or you can brush a friction-resisting liquid onto the bottom of the rug. These preparations are sold under such names as "rug anti-slip."

Agricultural Almanac.

Probable State of the Weather.

MAY

1–3 Danger period. A storm of unusual severity will spread eastward over the Missouri River valley with strong winds, reaching the upper Mississippi valley by the 3rd. Threatening conditions in the Ohio River valley.

4–7 Changeable spell. The storm area will move rapidly east and southeast to the Atlantic coast with heavy rains. Clearing in the west by the 5th, and in most other areas by the 7th.

8–11 Local storms. Pleasant quite generally. Local storms in the Great Lakes region and St. Lawrence River valley. Thunder storms on the southern plains will bring needed rainfall.

12–15 Fair period. Clear and cool in the northeastern states. Fine weather for the farmers to plow and plant. Dry and warmer in California. Fogs along the New England coast.

16–19 Storm period. Brisk rains on the northern plains will be most welcome. Blustery squalls in the Gulf states. Wind storms in the northern Rockies.

20–23 Unsettled spell. Heavy rains at many points may be expected at this time. Gales along the Pacific coast.

24–27 Variable period. Disagreeable at first, becoming clear and delightful on Sunday. Rising temperatures in most sections. Hot in the southeast.

28–31 Windy weather. Violent thunder storms and strong winds will make this a most unpleasant period. Hail in many places.

Temperatures for the month will be average, precipitation above normal.

Probable State of the Weather.

JUNE

1–3 Fair weather. Clear skies and much warmer in the Mississippi valley. Hot and sultry in the Ohio River valley, with occasional thunder storms.

4–7 Unsettled spell. Local storms along the Missouri River will bring little rainfall. Very dry in California and much warmer.

8–11 Changeable period. Fair up to the 10th, when violent thunder storms in the southeastern states will begin the rainy season. Scattered showers in New England and cooler.

12–15 Storm period. Sudden, swift storms of unusual violence may be expected in many sections. Strong winds in the northern Rockies will do much damage.

16–19 Disagreeable period. Cool in the Great Lakes area, with frequent showers. Very hot in the Gulf states, where daily thunder storms will occur.

20–23 Fair period. Clear and delightful on the western plains. Sultry in the lower Missouri valley, with frequent thunder storms. Pleasant in Oregon and Washington.

24–27 Stormy weather. Fierce gales along the Atlantic coast will do much damage to small boats and coastal property. Sand storms in the southwestern states. Strong winds quite generally.

28–30 Fair spell. Clearing on the 28th, followed by fine weather. Much warmer in the Ohio River valley, where scattered thunder storms will bring rain and hail.

Precipitation below normal for the month, temperatures above the average.

Probable State of the Weather.

JULY

1–3 Unsettled period. Local storms in the Missour River valley will bring considerable rainfal, to that section.

4–7 Fair weather. Clear and warmer in the upper Mississippi valley. Fine growing conditions for summer crops. Hot and dry in the southwestern states.

8–11 Stormy spell. Widespread thunder storms in the southeastern states and westward along the Gulf coast. Violent squalls and cloudbursts in the Allegheny Mountains.

12–15 Clear spell. Fair and hot in most sections. Occasional thunder storms on the northern plains, but very dry further south. Delightful in New England with cool northeasterly winds.

16–19 Local storms. Sudden squalls on the Great Lakes may be expected at this time, endangering small boats. Showers in the southern Rockies.

20–23 Storm period. Violent thunder storms in some northeastern states will be accompanied by damaging hail. Heavy rains in the Gulf states. This will be a tornado period.

24–27 Windy spell. Blustery squalls on the 24th and 25th, to be followed by fair and cooler weather. However, strong winds will continue to blow in most sections.

28–31 Unsettled period. Dangerous gales may be expected along the California coast, but little rain will fall. Frequent rains in the lower Mississippi valley.

Precipitation and temperatures for the month will be average.

AUG.

1–3 Heat wave. Very high temperatures quite generally will cause much suffering in large cities. Fine vacation weather. Very dry on the southern plains.

4–7 Storm period. Violent thunder storms will bring relief from the heat in the Ohio River valley. Blustery squalls along the Atlantic seaboard.

8–11 Fair weather. Clear skies and cooler in the Great Lakes area, where cool northerly winds blow. Very pleasant in Oregon and Washington.

12–15 Local storms. Thunder storms will bring heavy rains to the southeastern states. Dense fogs along the California coast. Showers in the Allegheny Mountains.

16–19 Danger period. Threatening conditions on the 16th and 17th will presage severe storms that will develop the first of the following week and spread eastward to the upper Mississippi valley. A hurricane will threaten the southeastern states.

20–23 Varied spell. The storm area will move slowly into the eastern states with frequent rains and strong winds, while in the west conditions will moderate and skies clear.

24-27 Unsettled period. Hot, sultry weather on the southern plains will be broken by violent thunder storms. Scattered showers in New England.

28–31 Clear skies. Fair weather in most sections at this time, with occasional thunder storms, but little rains. Hot and dry in the southwest.

Temperatures for the month above the average, precipitation below.

Agricultural Almanac.

Probable State of the Weather.

SEPT.

1–3 Storm period. Unsettled and rainy in the north Atlantic states with lower temperatures. Hot and dry in the southeast. Dense fogs along the coast of Oregon and Washington.

4–7 Fair spell. Delightful fall weather in the upper Mississippi valley. Early frosts on the northern plateau.

8–11 Danger period. Severe storms and heavy rains in many sections. A tropical hurricane will threaten the Gulf states and Florida. Violent gales on the Great Lakes.

12–15 Unsettled spell. Milder weather in the West, but still wet and blustery. In eastern areas severe storms will cause much damage.

16–19 Changeable period. Unsettled at first with skies clearing on the 18th in the Ohio River valley and northeastward to New England.

20–23 Blustery weather. Very windy in the lower Mississippi valley, with scattered rains. On the California coast sudden squalls will endanger small craft and wreck water front property.

24–27 Fair period. Clear skies and cooler. Fine harvest weather for the farmers. Chilly nights on the northern plains with heavy frosts in low places.

28–30 Stormy weather. Rain storms and unpleasant in the Missouri River valley. Snow flurries in the northern Rockies. Fogs along the north Pacific coast.

Precipitation for the month above the average, temperatures below normal.

Probable State of the Weather.

OCT.

1–3 Fair weather. Lower temperatures in the upper Mississippi valley as skies clear. Heavy frosts in New England. Light snows on the northern plateau.

4–7 Local storms. Unsettled in the Great Lakes area, where chilly north winds will bring cold rains and high waves. Rains in the Ozarks.

8–11 Clear spell. Fair weather as a Harvest Moon lights the night sky. Lower temperatures will reach far into the south, bringing cool weather. Unsettled on the 10th and 11th in the northwestern states.

12–15 Storm period. Severe gales will strike the California coast, causing much damage to shipping and coastal property. Rains in the southeastern states. Clearing on the 15th.

16–19 Variable spell. Fair up to Friday, when local storms will bring scattered rains to the Missouri River valley. Blustery squalls along the Atlantic coast from Cape Hatteras to the Canadian border.

20–23 Windy weather. Generally fair, but cold northerly winds will make conditions unpleasant. Sand storms in the southwest may be expected.

24–27 Unsettled period. Sudden, swift storms of unusual violence will strike many sections. Early blizzards on the northern plains.

28–31 Cold wave. Fair weather and much lower temperatures. Killing frosts in the Ohio River valley. Snow flurries in the Allegheny Mountains.

Precipitation and temperatures for the month will be normal.

THAW OUT

frozen pipes easily in this way: (1) open the faucet; (2) working slowly away from the faucet, pour boiling water on pipe or apply hot cloths or hold an electric heater, burning newspaper or torch near pipe. If the pipe has not been

Probable State of the Weather.

NOV.

1–3 Local storms. Warmer in the upper Mississippi valley, with scattered rains. Snow flurries in the northern Rockies. Heavy fogs along the Atlantic coast.

4–7 Changeable period. Fair at first, becoming unsettled and blustery in the northern states on the 6th. Severe storms in the lower Mississippi valley on the 7th. Gales along the coast of Oregon and Washington.

8–11 Stormy weather. Heavy rains in the Ohio River valley. Sleet and rain in New England, turning to snow on the 10th, as temperatures fall.

12–15 Cold wave. Clear skies and much colder. Heavy frosts in the southeastern states. Warmer and unsettled on the 15th.

16–19 Fair period. Clear skies in most sections, but at some points snow flurries or rain squalls will occur. Overcast on the 19th.

20–23 Unsettled spell. Chilling winds will blow down from the north in the Great Lakes area, endangering late shipping and causing much discomfort. Severe gales may be expected on the Atlantic coast.

24–27 Fair weather. Clear and colder. Light snows in the northern plains. Showers in California on the 27th.

28–30 Local storms. Sleet and snow storms in the northwestern states and along the Missouri River valley. Unsettled on the southern plains, but little rain.

Precipitation normal for the month, temperatures above the average.

Probable State of the Weather.

DEC.

1–3 Variable spell. Fair at first, becoming overcast and threatening on the 3rd in the upper Mississippi valley. Warmer at most points.

4–7 Danger period. Severe storms will bring heavy snows to the Ohio River valley by mid-week, and eastward to New England by Saturday. Violent storms along the Pacific coast.

8–11 Local storms. Fair and colder at most points, but in some areas sudden, swift storms will do much damage. Delightful weather in the Gulf states and Florida.

12–15 Cold wave. Skies will clear on the 13th, as temperatures fall rapidly. Cold, northerly winds will sweep the western plains and reach deep into Texas. Frosts in the Gulf states.

16–19 Storm period. Threatening on the 16th in the Missouri River valley, followed by violent blizzards, as a storm area moves southeasterly across the country.

20–23 Changeable spell. Stormy in the Mississippi valley on the 20th, the Great Lakes area on the 21st, and in the eastern states a day or two later. Clearing in the west on the 23rd.

24–27 Fair weather. Pleasant quite generally, with snow flurries bringing a white Christmas to many points in the north. Clear and sunny in the south.

28–31 Storm period. Fair up to the 30th, when heavy snow storms may be expected in the Great Lakes area. Blizzards in the St. Lawrence River valley. Rains in California.

Precipitation for the month above the average, temperatures below normal.

broken when freezing, thawing backward from the faucet as described will break the freeze, permitting water to flow as soon as thawing is complete. Be ready to shut off main valve in case pipe is broken.

Agricultural Almanac

(Continued from Page 2)

March 21, at 12 o'clock 33 min. in the morning.

Summer Solstice, entrance of the Sun into Cancer, June 21, at 7 o'clock 45 minutes in the evening.

Autumnal Equinox, entrance of the Sun into Libra, Sept. 23, at 10 o'clock 41 minutes in the morning.

Winter Solstice, entrance of the Sun into Capricorn, Dec. 22, at 5 o'clock 54 minutes in the morning.

PRESERVE WOODENWARE

and put off replacement cost. Serving trays can be protected for long life by waxing with furniture wax. Salad bowls, cheese boards, bread boards, stirring spoons, all may be preserved by rubbing well with salad oil before and after use. Be sure to wipe off surplus oil. Washing, if any, should be **quick**, in lukewarm water. Soaking, steel wool and strong soaps wear out woodenware of any kind.

SCORCH ON LINEN

If white linen is accidentally scorched, wash in soap and water first. If this doesn't remove spot, dampen a white cloth with hydrogen of peroxide and place over stain. Place a clean dry cloth over this and iron with a medium hot iron —replacing the top cloth if peroxide soak through. Never put iron directly on peroxid moistened cloth or on scorched linen, because will cause a rust stain.

SUDS WILL CLEAN SOME FELT HATS

A woman's felt hat usually can be clean with the soapsuds treatment.

Remove all trimming and give the bonnet good brushing to remove all surface dust. Mak a thick suds and sponge the surface of the ha Rinse with a sponge or a cloth dipped in clea water. Avoid getting the felt soaking wet an work lightly.

After washing absorb excess moisture with towel. Stuff the crown with paper and give th brim the necessary tilt. Prop it so the air can circulate and shorten drying time. When hat is dry brush with a round and round motion to la the nap.

ANATOMY OF MAN'S BODY,
AS SAID TO BE GOVERNED BY THE TWELVE CONSTELLATIONS.

The Head and Face — Aries.

Arms, Gemini.

Neck, Taurus.

Heart, Leo.

Breast, Cancer.

Reins, Libra.

Bowels, Virgo.

Thighs, Sagittarius.

Secrets, Scorpio.

Legs, Aquarius.

Knees, Capricorn.

The Feet — Pisces.

SHORT ALMANAC FOR THE YEAR 1946.

Being the second after Leap Year, and the 170th of American Independence.

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
JAN.			1	2	3	4	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
	27	28	29	30	31		
FEB.						1	2
	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28		
MAR.						1	2
	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
	31						
APR.		1	2	3	4	5	6
	7	8	9	10	11	12	13
	14	15	16	17	18	19	20
	21	22	23	24	25	26	27
	28	29	30				

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
MAY				1	2	3	4
	5	6	7	8	9	10	11
	12	13	14	15	16	17	18
	19	20	21	22	23	24	25
	26	27	28	29	30	31	
JUNE							1
	2	3	4	5	6	7	8
	9	10	11	12	13	14	15
	16	17	18	19	20	21	22
	23	24	25	26	27	28	29
	30						
JULY		1	2	3	4	5	6
	7	8	9	10	11	12	13
	14	15	16	17	18	19	20
	21	22	23	24	25	26	27
	28	29	30	31			
AUG.					1	2	3
	4	5	6	7	8	9	10
	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	31

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
SEPT.	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30					
OCT.			1	2	3	4	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
	27	28	29	30	31		
NOV.						1	2
	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30
DEC.	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30	31				

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